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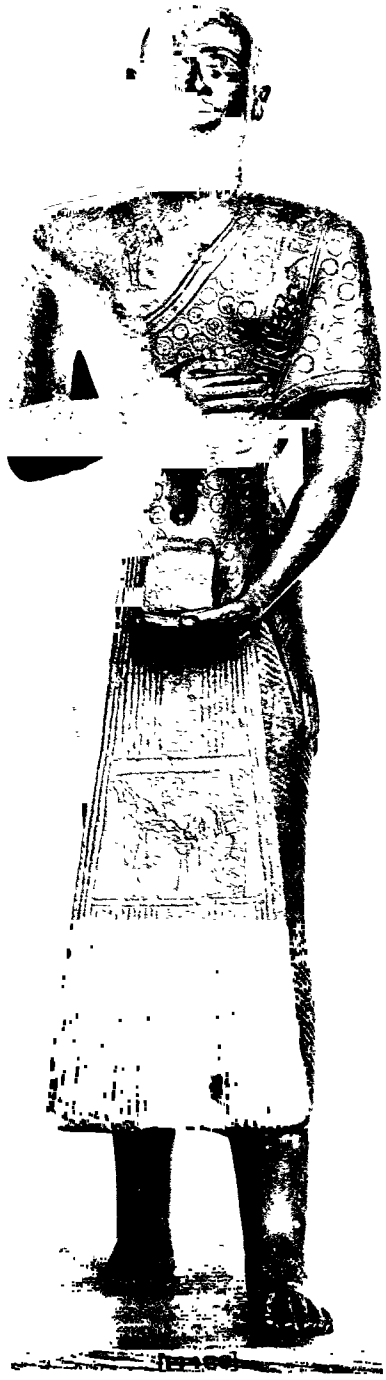
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Bronze figure of Khonserdaisu.
British Museum, No. 14,466.
*Scale c. ½.*

# THE BRONZE STATUETTE OF KHONSERDAISU IN THE BRITISH MUSEUM

By H. R. HALL

With Plates i and ii

The British Museum possesses a fine bronze statuette (No. 14466) of the hereditary chief Khonserdaisu (Chonsortaïs), who held various priestly offices under Psamatik I (Pl. i). It is 14 ins. (35·5 cm.) tall, and of very good style. The eyes are inlaid with silver. Khonserdaisu ("Khons showeth himself") stands with left foot well forward, clad in a clinging freely-gauffred garment of linen with a long and broad apron in front, gauffred vertically. On the upper part of his body he wears a priestly "leopard-skin" garment; no real leopard-skin but a close-fitting coat of fine linen in the form of a leopard-skin, with imitated tail and claws, which covers the left shoulder and passes beneath the right shoulder. One claw emerges from under the right shoulder, another lies on the right thigh, while the third and fourth fall on the left hip, hanging from either side of the shoulder. This priestly garment has a broad border and is decorated all over with rings representing the spots of the leopard. From the left shoulder runs a stole-like vertical band with a royal inscription, which passes behind the left fore-arm and ends above the foremost of the two panther's claws on the left hip of the figure. This band is continued over the left shoulder and descends again, with an inscription, across the left half of the back to the waist, and then curves down vertically to the root of the tail, where it ends (Pl. ii). The gauffred dress ends squarely low on the calves of the legs. The leopard-claws are roughly cut with four talons: the tail is conventionally bulbed at its end and is marked by a number of small chevrons, angle upward. It is $3\frac{1}{2}$ ins. (8·85 cm.) long from its root. The claws are $\frac{3}{4}$ in. (1·95 cm.) across. The stole-like band is $\frac{7}{16}$ in. (1 cm.) to $\frac{1}{2}$ in. (1·25 cm.) broad. The feet, which are complete, and executed in rather a summary manner, are $2\frac{3}{8}$ ins. (6 cm.) long. Each has a tang $1\frac{1}{2}$ ins. (3·85 cm.) long by $\frac{13}{16}$ in. (2·1 cm.) to $\frac{7}{16}$ in. (1 cm.) broad.

Khonserdaisu originally held a figure of a god in his hands, presumably Osiris, which has now disappeared, since it was separate from the main figure. Its rectangular pedestal, $\frac{25}{32}$ in. (2 cm.) square, is cast in one piece with the rest, and remains. The missing figure was secured in it (being let in in the usual Egyptian manner) by a pin, also gone, which passed through the pedestal parallel with the body of the main figure by means of two holes in its upper third. The left arm is half bent, and the hand that carried the god is open horizontally, supporting it a little below the level of Khonserdaisu's navel. The right arm is bent at the elbow at right angles, and the hand, spread out, secured the upper portion of the figure of the god half-way between the navel and the breast. On the bare right shoulder is incised a figure (perhaps tattooed on the man himself) of Osiris (Fig. 1) wearing the *atef*-crown and holding the crook and "whip," and on the right arm immediately below the shoulder is a cartouche, much worn, but apparently containing the royal name of Psamatik. The head is shaven, the face shows the usual glabrous



Fig. 1.

priestly visage, not however without character. The nose is slightly depressed at the tip by accident. The eyes, as has been said, are inlaid in silver. The ears are not pierced.

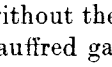
On the front of the apron is incised a scene (Fig. 2) of the dead man adoring Osiris, who stands carrying the *uas* and wearing the feathered white crown without the ram's horns. The dead man is in the same half-length gauffred garment that the figure itself wears, but the "leopard-skin" coat is not indicated, probably on account of the smallness of the scale. The height of the figure is 1 in. (2·5 cm.). It holds both hands up in adoration and is shaven-headed as before. Between these figures is an offering-table heaped high with fruit and flowers, above which is cut the inscription (by Osiris) , "prince Osiris," (by the man) , "Khonserdaisu." Above the group is the symbol of heaven, . From immediately below the centre of the back of the left hand supporting the Osiris figure begins an inscription in a vertical band which is interrupted by the incised scene described above. This band is $\frac{7}{16}$ in. (1 cm.) broad above and 1 in. (1·25 cm.) below. The inscription (Fig. 3) reads, beginning with the royal titulary on the stole-like band on the front of the leopard-skin garment, ending in one of the paws: the usual titulary of Psamatik I, ending rather abruptly under the left arm; followed below by the man's name and a sentence of uncertain meaning, above and below the scene of offering to Osiris described above:

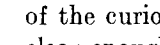


Fig. 2.

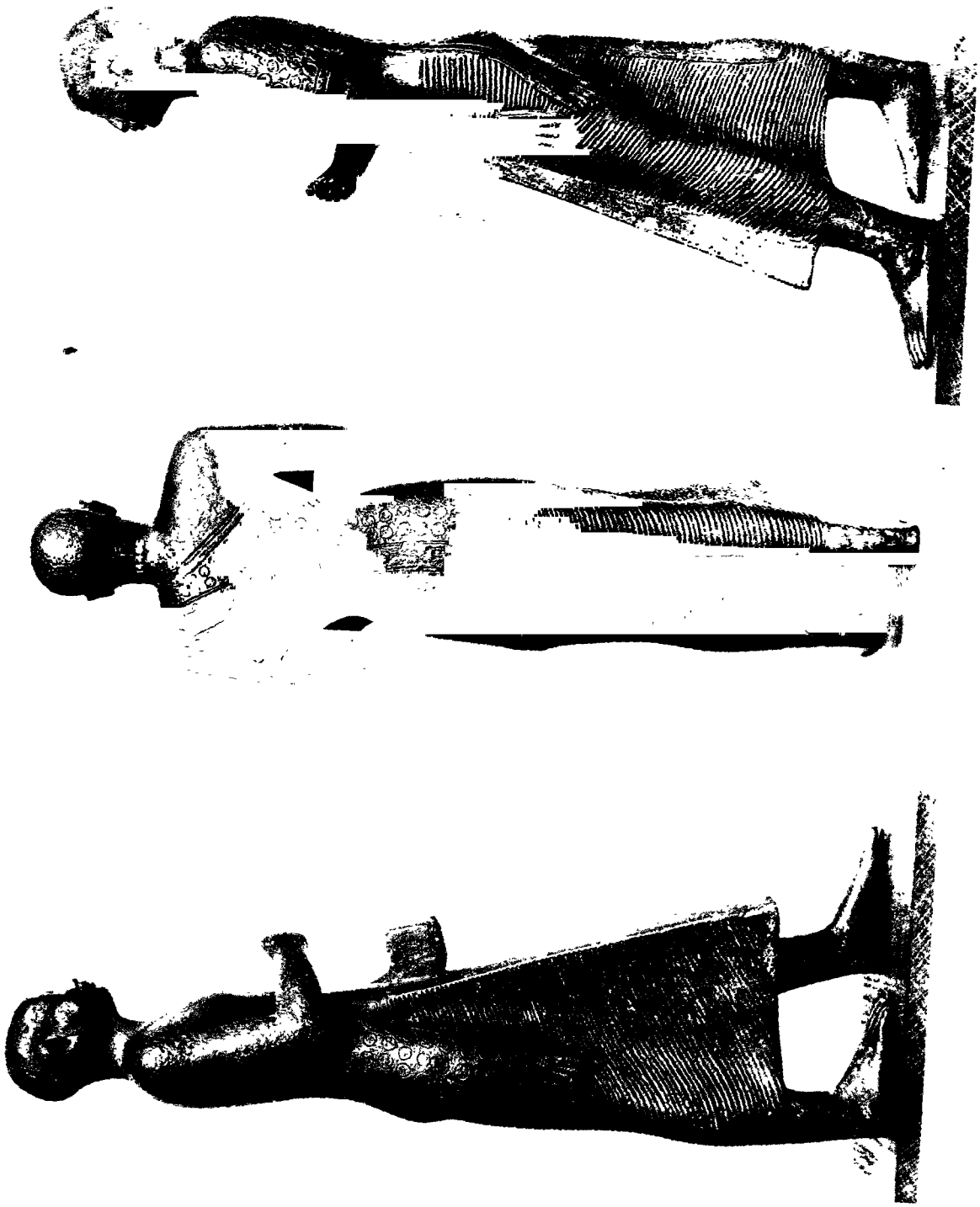
"The Chief of Upper Egypt, Khonserdaisu [.....], I am the [...]," followed by the inscription on the back of the leopard-skin, "whom he (*i.e.* the king) praiseth and loveth, his upright servant the Hereditary Chief and Governor of Upper Egypt, *mr-ḥnt* in Hierakopolis, in the territory of the Serpent Mountain, the governor (?), ....., Khonserdaisu deceased."



Fig. 3.

The signs of the royal titulary are mostly well and deeply cut, but those of the rest of the inscription are inferior, often merely scratched; and they have since suffered from oxydization, so that here and there they are illegible. It is however clear that Khonserdaisu's city was Nut-ent-bak or Hierakopolis (not the well-known Hierakōnpolis), the chief town of the *Du-ḥefi* or "Serpent-Mountain" nome, the 12th in Upper Egypt, called *Apollinis minor civitas* to distinguish it from *Apollinopolis parva*, the ancient Qesi, modern Ḳûṣ. It was between the modern Ḳâw and Abutîg. The meaning of the curious signs , which are, with the exception of the queried sign, clear enough, escapes me, nor have either Prof. Griffith or Mr. de Buck, whom I have consulted, been able to explain them; possibly they are "enigmatic" writing.

The figure is a very fine example of a Saïte bronze. Nothing is known of its provenance. It has been repaired or completed anciently here and there by the insertion of small pieces of bronze.



Bronze figure of Khonserdaisu.
British Museum, No. 14456
*Scale c. ¼*

# MISCELLANEA

By G. P. G. SOBHY

With Plates iii–viii

## 1. The Persistence of Ancient Facial Types Amongst Modern Egyptians

It was a curious coincidence that I should notice the striking resemblance, of the facial features at least, between one of the patients of my section at Ḳasr el-'Aini Hospital, and the newly-found statues of Akhenaten, supposed to be caricatures of the king. I reproduce photographs of the patient and the statues, and leave the reader to be impressed by the resemblance; in order to make it much more striking, I resorted to the trick of photographing the patient with the double crown on his head. The face view belongs to another statue of the same king. Pls. iii and iv.

The patient, M. H., was admitted to my ward suffering from pulmonary tuberculosis. He was about twenty years of age, born in Cairo, and had never left the city in his life. As far as he can remember, his people have always lived in Cairo, and are not known to have come from any other part of Egypt.

He is physically weak, but apart from his chest complaint, does not suffer from anything else. A detailed examination of his endocrine glands was made and they all appeared to work normally, except that there was a very low blood pressure, due to hyposecretion of the adrenals very common in tuberculosis. His sexual organs are of normal development. The pituitary gland does not show any deviation from normal. The importance of this finding is to show the persistence of the type of Akhenaten in Egypt, and that there is no need at all to resort to any pathological theory to explain the rather extraordinary shape of the king's features.

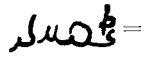
The signs of Fröhlich's Syndrome do not obtain in their entirety in the statues of Akhenaten, and it seems to me that one cannot very well diagnose this disease in a person without having known him in the flesh. It must be remembered that this Syndrome means total impotence and consequent sterility, unless it is acquired late in life, which is exceedingly rare. Yet we know that King Akhenaten had three daughters. The conformation of the body observable in the statues, particularly the exaggeration of the size of the breasts, can be seen to-day amongst living Egyptians who tend to become obese.

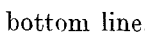
## 2. Demotica

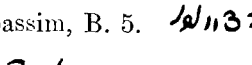
Looking through the papyrus fragments preserved in the National Library in Cairo, I came across some Coptic, Arabic and Demotic papyri. The Arabic I leave alone. The Coptic show no particular interest except in their script, which is cursive and very difficult to read; I may publish them on some other occasion, but the type is not unknown. The Demotic papyri are, however, of particular interest: firstly because they

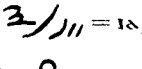
belong to two well-known papyri already published and may fill gaps in the published works, however unimportant they may be; secondly, because the fact that they have been found together in the Library proves the hypothesis put forward by Professor W. Spiegelberg that the two original papyri must have been found together. I give photographic reproductions of them, although they are unfortunately so fragmentary that one cannot make any connected sense out of them. I must say here that it was due to the kindness of Sir H. Thompson that I paid any attention to them and identified them. Plates v–viii.

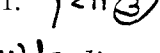
Fragments A, B, C and E (Pls. v–vii) are all parts of the Petubastis papyrus published by Professor Spiegelberg in his volume entitled *Der Sagenkreis des Königs Petubastis*, Leipzig, 1910. Apart from the general resemblance of the script, the identity is proved by the following writings:

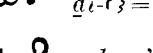
A. I, 8.  = *Dcne* = ϫααπε = صان, exactly as it is written elsewhere in the papyrus.

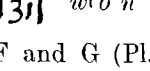
A. II, 4, and bottom line.  = *cnḫ ḥr*, exactly as it is written elsewhere in the papyrus.

A. I, 17 et passim, B. 5.  = *mšr n Kmy*.

A. I, 14.  = ιαρ = *ir*.

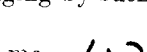
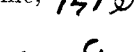
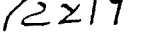
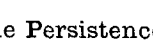
B. 6, 8, 9, 11.  = *rms* = رومس = boat. Etc.

C. 4.  *ḏi-cꜣ* = *ϫοιω.

C. 6.  *wcb n 'Imn*. Etc.

Fragments F and G (Pl. viii) belong to the Insinger papyrus published by Lexa (Paris, Paul Geuthner). This document consists of a series of chapters, *sbc·t*, but it has lost the first four and half the fifth, beginning in the middle of Chapter 5, *sbc·t* 5.

Fortunately Col. II, l. 3 of our fragment G begins *t·sbct mḥ 2·t*, which shows that the ends of lines of Col. I and the remnants of ll. 1–2 of Col. II are parts of the first chapter. The phrases beginning with *tm* (l. 4), *b·'r* (ⲙⲉⲣⲉ, ll. 6, 7, 8, 9), are very common in the Leyden MS. of Insinger.

Fragment D (Pl. vii) is in a different hand, but it seems also to be a fragment of a moral work, judging by such words as  *'yty* (l. 4), "famine, disease," as Sir H. Thompson tells me,  (l. 7) = ϲⲟⲩⲛⲓ = *sḏny* = counsel;  (l. 8) = *iwḥ* = defect, sin;  (l. 8) = *swg* = ϲⲟϫ = folly;  (l. 13) = *md-bn* = ⲙⲉⲧϩⲱⲙ = evil.

### 3. The Persistence of Ancient Egyptian Words in Modern Arabic

While walking in the streets of Old Cairo one day, I came across a party of boys playing ball. The game is played in the following manner: a brick is placed on end on the ground, and a guardian stands next to it to control the play of the other party, who



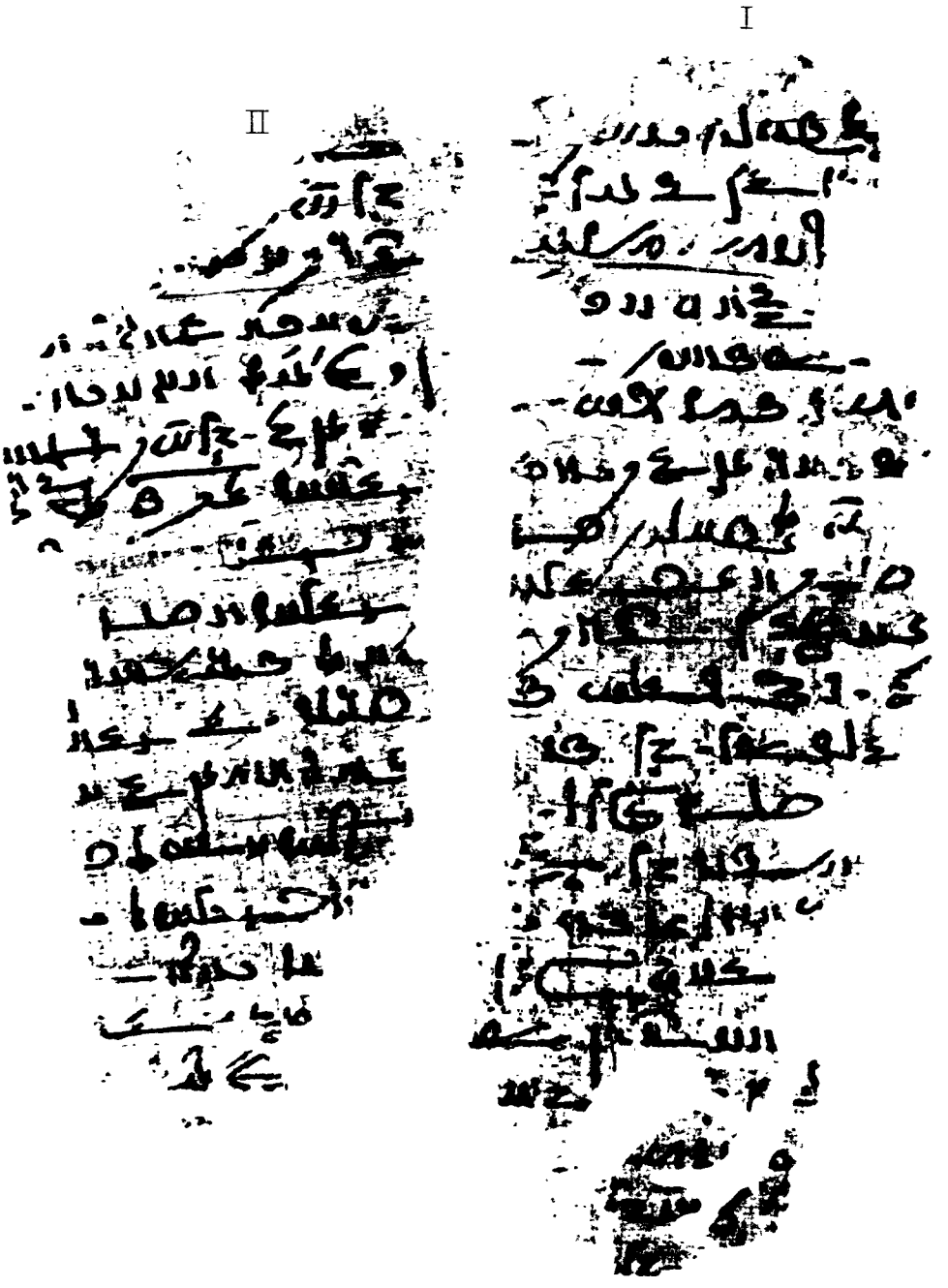
1 2 3

1. Head of a modern Egyptian
2. The same head with the head-dress of the Akhenaten statue
3. Statue of Akhenaten from Karnak

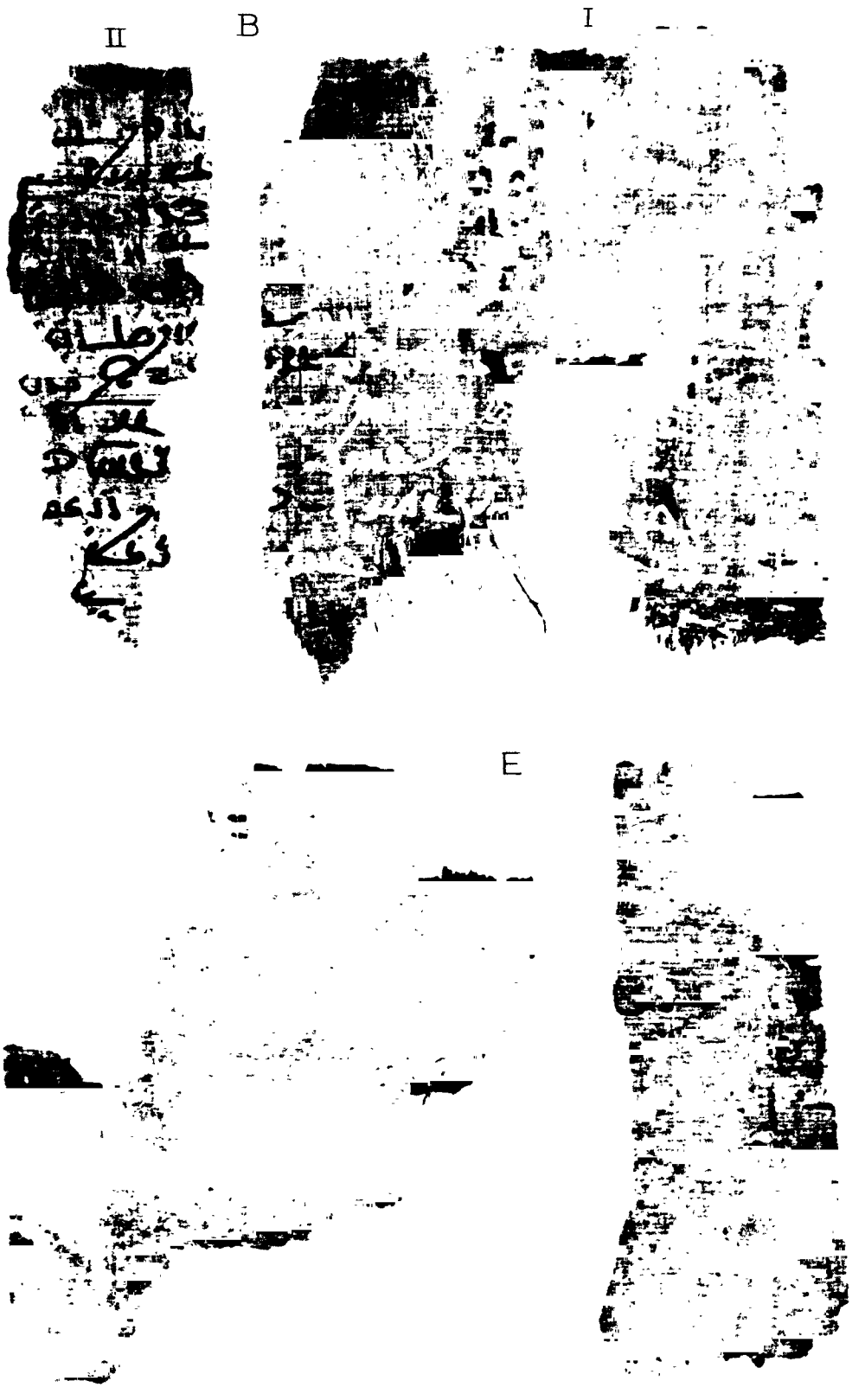
Plate III.



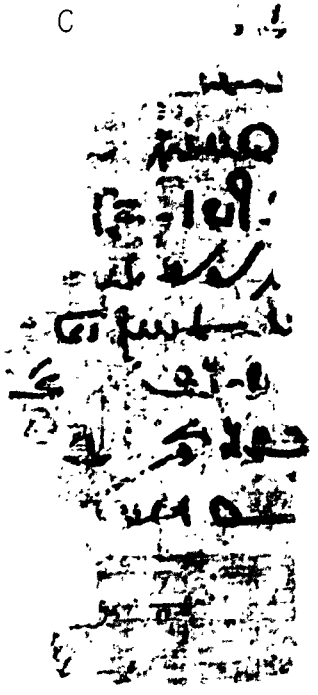
1. Head of a modern Egyptian
2. Statue of Akhenaten from Karnak



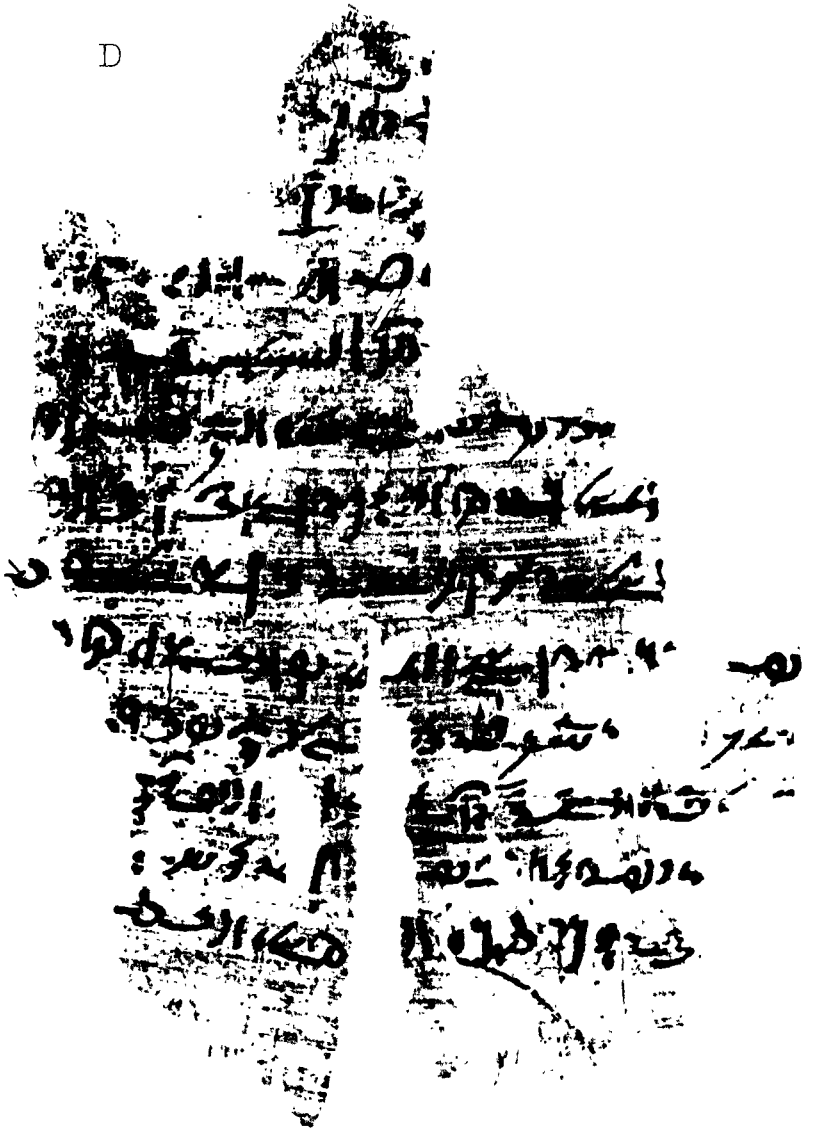

Fragment A of the Petubastis Papyrus.




Fragments B and E of the Petubastis Papyrus.



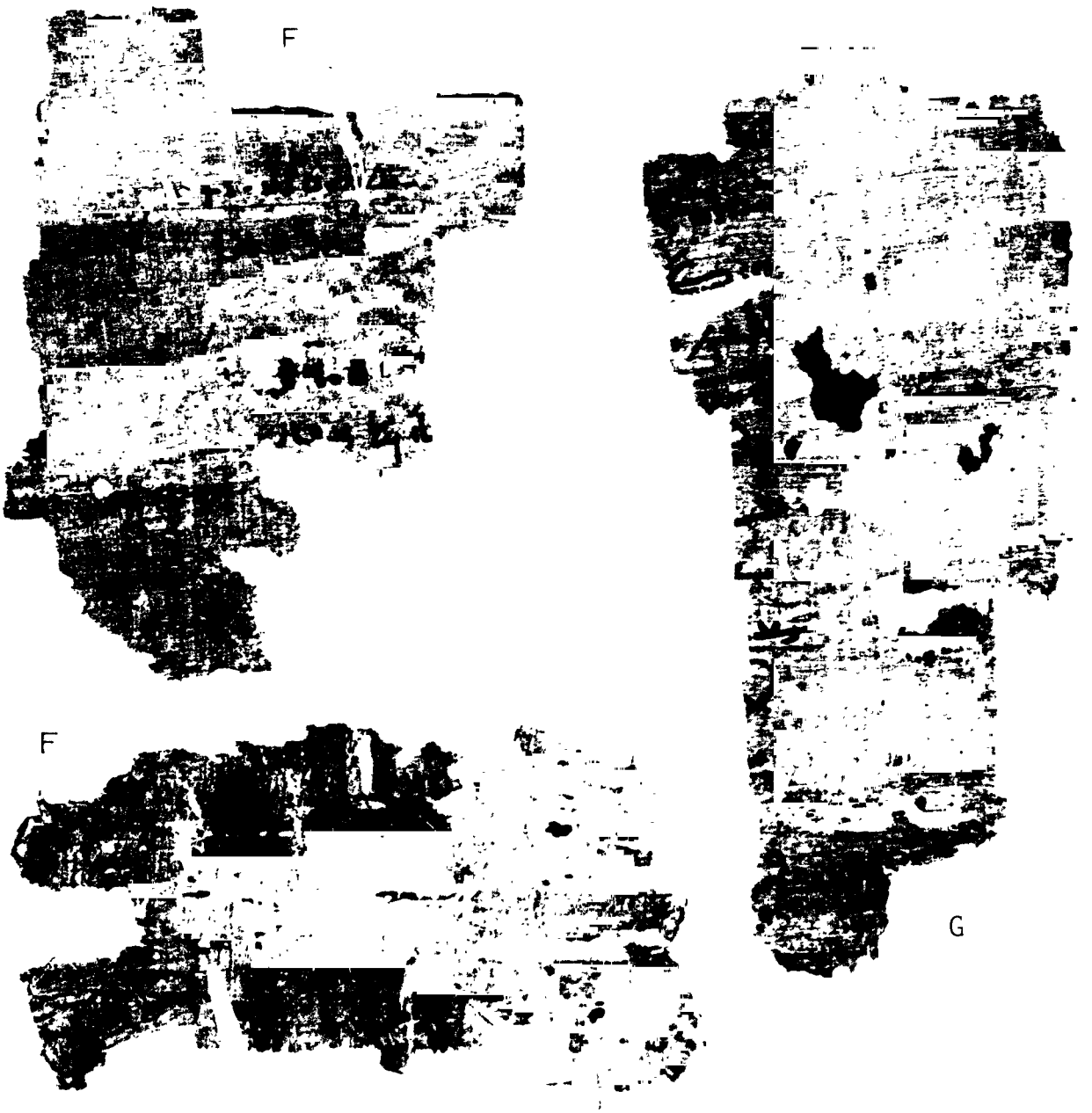

1




2

1. Fragment C of the Petubastis Papyrus.
2. Fragment of a didactic work in demotic.

Plate VII.




Fragments of the Insinger Papyrus.

# THE NUMERICAL VALUE OF A MAGICAL FORMULA

By CAMPBELL BONNER

With Pl. ix, figs. 3 and 4

In the Berlin magical papyrus 5026, ll. 126 ff., in the course of a λόγος addressed to Apollo, these words occur: *ἐγώ εἰμι ὁ δεῖνα, ὅστις σοι ἀπήντησα, καὶ δῶρόν μοι ἐδωρήσω τὴν τοῦ μεγίστου σου ὀνόματος γνῶσιν, οὗ ἡ ψῆφος θϡϙθ.* The text of this papyrus was newly collated for Preisendanz's edition by Wilcken and Kroll, and we may therefore accept the numeral 9999 as correct, although Parthey read only *θρ*. After the numeral follows a long series of combinations of the vowels, extending over four lines of the column.

In a note on the passage Preisendanz remarks, "Der Zahlenwert 9999 ist aus den Vokalgruppen nicht ermittelbar." No single group nor the sum of them all will yield this number. To search for a formula which would give this numerical value would be the idlest of idle tasks; but since a coincidence has suggested to me a plausible explanation of the number, it seems worth while to call it to the attention of those who are interested in Graeco-Egyptian magic.

About two years ago I purchased in Athens a "gnostic" stone which is a good specimen of a type known from several other examples (Pl. ix, fig. 3). It is a dark red jasper, shading at the lower right-hand edge into dark green, oval in shape, and about 19 by 14 mm. in size; the setting, a modern gold ring of good workmanship, covers a small part of the margin. The centre of the field (Fig. 1) is occupied by a figure of the child Harpocrates seated upon a lotus in a papyrus boat, of which the right-hand extremity is rudely shaped into the head of some animal, possibly an ox. The god faces to the left, his right hand is raised to his mouth, and with his left he holds a whip, the lash hanging over his shoulder. Above his head are three scarabs in a horizontal row, under these the moon to left and a star to right. Facing the figure of Harpocrates are three birds (hawks?) in a vertical row, behind him three goats similarly arranged. Under the boat to left there are three crocodiles vertically arranged, to right three snakes. The whole design is surrounded by a serpent with his tail in his mouth. On the back of the stone is an inscription cut in the rough capitals with strongly marked serifs which are characteristic of such stones (Fig. 2). It reads

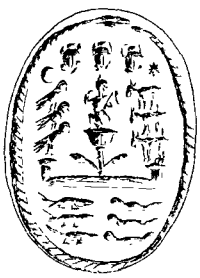


Fig. 1.

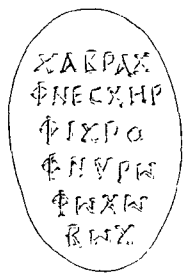


Fig. 2.

ΧΑΒΡΑΧ
ΦΝΕCΧΗΡ
ΦΙΧΡΟ
ΦΝΤΡΩ
ΦΩΧΩ
ΒΩΧ

The letters are not crowded and each line seems meant to represent a separate word.

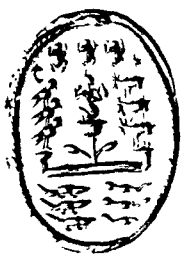
The words have no meaning in either Greek or Coptic and are probably jargon. At any rate I found in them nothing significant beyond the circumstance that all the



1



2





3





4

1. Babylonian cylinder-seal in the Musée du Louvre (*by courtesy of M. Delaporte*).

2. Figure of Bes with Horus, in glazed frit-ware *Scale c.* $\frac{1}{3}$.

3 and 4 "Gnostic" stones in the possession of Professor Campbell Bonner. *Scale* $1\frac{1}{4}$.

seven vowels occur in their proper order. However, I remembered the formula, and in the course of casual reading I have noted some other cases in which it occurs. It is found on the reverse of a green jasper Abrasax stone in the Southesk Collection (*Catalogue of the Southesk Collection of Antique Gems*, I, Pl. xiii, No. 1); in this case the letters are somewhat crowded and there was no effort so to divide them as to give a line to each word. Otherwise the agreement with the reading of my stone is exact. In the catalogue of the gems of the Bibliothèque Nationale (Cabinet des Médailles) Chabouillet describes a haematite (No. 2196, p. 293) which has on the obverse a design similar to that on my stone, Harpocrates and the triplets of animals, with traces of the common legend *αβλαναθαναλβα*, and on the reverse the seven vowels in seven different arrangements and a legend of which the following letters remain: *αηιουιχαβραχφνεσχ κροφυυρ*. There is, or was, also in the Cassel Museum a stone for which I have to rely upon the description and rude illustration given by Kopp (*Palaeographia Critica*, IV, 266 ff.); the figure given in Matter's *Histoire Critique du Gnosticisme* (Pl. iii, fig. 4) seems to be derived from an untrustworthy source. On the obverse is Harpocrates seated on a lotus in the right half of the field, in the left stands an adoring cynocephalus. Above, the moon and a star. There is also the legend εἷς Ζεὺς Σάραπις. On the reverse Kopp reads the inscription *χαβρ | αχφνεσ | χηρφιχρ | οφνυρωφ | νχροφυυρ | ωφωχωβωχ · βαιχωωωχα | βρασαξδος | χαριν αλε | ξανδρ*. The engraver has carelessly repeated two words of the *χαβραχ* formula, and has given *φνχρο* for *φιχρο* the second time. Further evidence of his inattention is to be found in the omission of *ν* from the common magical word *βαινχωωωχ*. Kopp, it may be remarked, discovers a meaning in Hebrew for the syllables *χαβραχ* and *χηρφιχρο*; but since in order to do so he has to remove them from their connexion, it is doubtful whether this is anything more than a coincidence.

Finally, Matter (*op. cit.*, Pl. ii B, fig. 5) illustrates a stone in the Strasbourg library which he was the first to publish, and as to which his report may be taken as trustworthy. It represents a scarab with a jackal's head, surrounded by the *χαβραχ* formula as it appears on my stone with one difference only, *φωχο* for *φωχω*. It is likely that other stones with the same inscription could be found, but the point needs no further emphasis. The fact that the formula is found on the backs of magical stones shows that it is a "name of power"; compare P. Lond. XLVI, 450 ff. (p. 196 Preisendanz), where directions are given for the making of a magical ring with a name engraved upon the back of the stone.

The *χαβραχ* formula occurs with various palaeographical corruptions in the magical papyri. Thus it is found in Paris 2391 (PMimaut), l. 79 and again at l. 152 f., in PBerlin 5025, l. 142, and finally in PBerlin 5026, l. 140 f. The last instance, it will be observed, is only about ten lines removed from the number-name 9999 with which we started, and belongs to the same invocation to Apollo.

While reading over the Berlin papyri in Preisendanz's excellent new edition, it occurred to me to try whether any numerical value of significant appearance was associated with the formula on my ring-stone, especially since its recurrence on other stones and in the papyri seemed to mark it as important. The result follows:

| | | |
|---|---|---|
| *χαβραχ* | 600+1+2+100+1+600 | 1304 |
| *φνεσχηρ* | 500+50+5+200+600+8+100 | 1463 |
| *φιχρο* | 500+10+600+100+70 | 1280 |
| *φνυρω* | 500+50+400+100+800 | 1850 |
| *φωχω* | 500+800+600+800 | 2700 |
| *βωχ* | 2+800+600 | 1402 |
| | | 9999 |

This is surely not a coincidence. It is true that not one of the papyrus examples of the formula will give the result that appears above, because of the corruptions which affect them all—λι for ν, ξ for χ, κ for χ, ο for ω and others. But the stones agree closely enough to establish the right reading, and even the variants in the papyri evidently proceed from the version which appears in perfect form on my stone and on that in the Southesk Collection.

It is worth noting that two other words associated with the χαβραχ formula on the Cassel stone also have significant numerical values. In the case of αβρασαξ (365) this has long been known. βαινχωωωχ gives the palindromic number 3663, which has a mystical importance in the great Paris magical papyrus (Bibl. Nat. suppl. gr. 574), l. 938; see Hopfner, *Griechisch-Aegyptischer Offenbarungszauber*, I. 181, and Dornseiff, *Das Alphabet in Mystik und Magie*, 105 and 172.

Although it has only a slight connection with the principal subject of this note, I take this opportunity to call attention to an isopsephic equivalent of βαινχωωωχ which appears not to have been observed. It occurs on another stone in my possession, an oval jasper 15 by 10·5 mm. in size, with the design cut in the longer dimension (Pl. ix, fig. 4). The stone is dark green except for an area of red covering the upper part of the obverse face and showing to some extent on the bevel, which in this stone is very broad; the reverse face of the stone measures only 11 by 7 mm. This also is a Harpocrates stone (Fig. 3). The god sits facing left on a lotus in a boat, his right hand lifted to his mouth, his left holding a whip as in the other specimen. His feet rest upon what appears to be a small altar or an altar-like footstool. On the stern of the boat, behind the god, sits a cynocephalus, on the prow a bird, apparently a cock. Under the boat is cut the word αβιμιωχωσσωϛ, the numerical value of which is 3663.



Fig. 3.

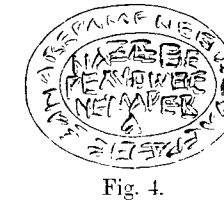


Fig. 4.

The bevel is completely encircled by an inscription which begins just under the left end of the obverse face, αβεραμενεθωουλερεθεξαν (Fig. 4). Exactly the same letters are repeated, beginning however at the other end of the series, on the small reverse face of the stone. That the two parts of the inscription were intended to make a palindrome is shown by the fact that the last letter of the inscription on the bevel is not aligned with the others, but is placed lower and slightly turned, as if to guide the eye of the reader on to the reverse face, where the letters να are placed close to the αν of the bevel.

I do not remember any other instance of the word αβιμιωχωσσωϛ, but the inscription on the bevel and the reverse of the stone is a version of a now well-known formula, of which several cases (with various readings, of course) are noted by Preisendanz *Wiener Studien*, XLI. 11 f.) and Eitrem (*Papyri Osloenses*, I. p. 35).

The occurrence of a number-name on the obverse of this stone may raise the question whether the palindrome on the bevel and the reverse might not also have been constructed with a view to some significant numerical value; but this is very doubtful. The sum of the letter-values in one or another of the versions of it comes near enough to 3663 to suggest that the exact number might be obtained by some manipulation of the text, and by allowing one of its two parts to differ slightly from the other. But such experiments are scarcely worth while.

Another instance of the χαβραχ formula is to be found on the remarkable heart-shaped bronze amulet in the University of London collection which is described by Professor Petrie (*Amulets*, 30–31; Pls. xxii and xlix). It is placed on the upper left-hand quarter of

the obverse side. Almost all of the letters are there, but the parts of the formula have been so intermingled with other words and symbols that it is not surprising that the editor did not see that they belonged together. Because of this oversight there are probably some slight misreadings, though this cannot be determined without inspection of the original; and some of the interpretations proposed for individual words or syllables (Petrie, 30, *cf.* E. Peterson, Rh. Mus. 75, 421) can scarcely hold. The amulet deserves to be re-examined with closer attention to its relations with other gnostic amulets, for it contains subjects which appear again and again upon the stones. The maker has lavished upon this one piece enough of the familiar magical symbols and formulas to make a dozen amulets of the ordinary type.

In conclusion I would call attention to two other names or formulas which appear to have significant equivalents in numbers.

In the great Paris papyrus (IV, 2428 Preisendanz) the name of the Agathos Daimon is given on the authority of Epaphroditus, presumably the maker of a magical book, as follows: *Φρὴ ανωὶ φωρχω φυυυυ ρορψις οροχωωι.* The numerical value is

$$608+861+2800+2100+1180+2450=9999.$$

I find no significant numbers in the alternative formula, the *Ἀρπονκνουφι λόγος* which is mentioned in l. 2434, and which is given in full, as Preisendanz points out, in one of the Berlin magical papyri (Preisendanz I, 28).

This second occurrence of a name represented numerically by a succession of nines may serve as an excuse for mentioning a sacred name with the value 99. In two passages of the Leyden papyrus J 395 (most conveniently consulted in Dieterich, *Abraxas*, 6) these words occur in an invocation: *τὸ δὲ φυσικόν σου ὄνομα αἰγυπτιστί·* Ἰαλδαβαειμ. The form of the name is corrupt in the papyrus, but this restoration is virtually certain; cf. Dieterich's note on p. 6, also p. 46. In one of the passages there stand the additional words *γράμματα θ̄ κάτεστιν.* Since there are actually ten letters in the name, this must mean, as Dieterich perceived, that *ει* is treated as a single sound equivalent to iota. The numerical value of Ἰαλδαβαιμ is then found to be 99.

This case would be of little interest but for the circumstance that ϥϑ (99) evidently had a talismanic value in Coptic writings—a point which would have escaped me but for the kindness of my colleague Professor W. H. Worrell. In *Zeitschr. f. äg. Spr.*, XXIV, 73, Stern calls attention to the occurrence of the symbol ϥϑ in religious texts, and explains it (following Agapius Bsciai) as an allusion to the parable of the flock of a hundred sheep—the writer of the symbol putting himself in the place of the lost sheep and invoking the prayers of the other ninety-nine, viz., his fellow Christians. On p. 102 of the same volume Springer explains it as a numerical equivalent for *ἀμήν* (1+40+8+50=99), and shows that this tradition passed into the church literature of the early Middle Ages. Worrell found the number at the beginning and at the end of the prooemium of a Coptic homily on the Archangel Gabriel, and again at the end of the work; see his *Coptic Manuscripts in the Freer Collection* (vol. X of *University of Michigan Studies, Humanistic Series*), 327, n. 2.

If Ἰαλδαβαιμ is a number-name, it is probable that the sacred or talismanic character of the number ninety-nine is older than its use in either magical papyri or Christian documents, and any explanation based upon either of these sources alone should be accepted only in a limited sense.

# FUNERARY DESIGNS ON PREDYNASTIC JARS

By G. D. HORNBLOWER

With Plate ix, figs. 1 and 2

The funerary character of many decorated jars of all three Predynastic periods has long been generally recognized, as also has that of the designs painted on them. The function of the jars themselves was to hold the various provisions required by the dead man in the Underworld, while that of the designs was, by magico-religious means, to ensure him a supply of these provisions, or at least of the meat of the animals depicted in the designs, and in some cases, as we shall see, to promote his welfare in other directions. In this function the designs are the true ancestors of the painted and carved scenes on the tomb-walls of later periods.

Leaving aside plain pottery and that decorated skeuomorphically, we first meet with free designs in the white-on-red class of the Early Predynastic period; they consist largely of animals for hunting, with a few hunting scenes; reeds are commonly depicted and probably represent the marshy hunting-grounds[1]. Their purpose was evidently the supply of food to the dead of a people who were primarily hunters, the Libyans of the Later Capsian race who at that time had settled in Egypt[2]; this function is clearly seen in a fragment of pottery representing a hippopotamus and his hunters, with their harpoons, found by Brunton at Ḳâw[3]. Agriculture was of course practised by them, as it was by the Badarians before them, and may perhaps have received a share of recognition in funerary designs in the case of two jars discussed in a previous article which seem to portray a fertility rite carried out by men and women together[4]. The

[1] See Petrie, *Prehistoric Egypt*, Pls. xvi–xviii, and, for reeds, Pl. xv.

[2] See *Journal*, xv, 33. Childe has given a later and more general statement of the matter in *The most ancient East*, 76–7.

[3] Brunton and Caton-Thompson, *The Badarian Civilization*, 54 and Pl. xlviii, 3. The harpoons appear to be furnished with looped coils of rope.

[4] *Journal*, xv, 33, n. 3. This would be a primitive rite executed perhaps by "medicine" men and women, or chiefs and their wives; it followed probably on the discovery, from experience with cattle, more or less domesticated, of the function of paternity, a discovery so striking and so vital that the function would be readily invested by the primitive imagination with mighty magic power. A good example of the survival of such rites into modern times is to be seen in the orgies practised at the spring festival in parts of India where pre-Aryan customs still prevail (see *Hastings Enc. of Rel. and Ethics*, v, 869). With the development, in civilized states, of kingship and divine dispensations, these functions would naturally devolve on gods and kings; the god had, in Egypt, his wife and, in Babylonia, his concubine (see Herodotus, i, 181 and 182, Blackman in *Hastings Enc.*, x, 296 and Sidney Smith, *A Babylonian fertility rite* in *J.R.A.S.*, Oct. 1928, 857) and in both countries the "divine marriage" (ἱερὸς γάμος) was regularly celebrated. With respect to kings, I need only refer the reader to Frazer's *Golden Bough* (2nd ed.), i, 154 ff., for many instances of their connexion with fertility: in Egypt we have the additional particularity that the king's position was incomplete without his marriage to a royal princess, and the *sed* festival, as explained by Newberry, ensured his continued power for the prosperity of the country by a new marriage with a royal lady when occasion commanded. (See also A. M. Hocart, *Kingship*, 101–4.)

original object of this rite was probably increase of animals, but, as agriculture expanded to become the dominant source of food-supply, the rite was doubtless extended to grain-production[1]. In the case of the two jars above-mentioned it is difficult to hazard an opinion as to the kind of food-supply for which the rite was intended, perhaps for both, but in any case the object of the design was to ensure sufficient provision, whether meat or corn, for the dead man.

Among the designs of this period is sometimes found the boat, but it is scarce and probably signifies no more than a means of transport for the dead hunter in the pursuit of his calling in a marshy land, though in some cases, of very rare occurrence, the boat depicted may have served for traffic. In the succeeding age, the Middle Predynastic, the boat becomes an important feature in the decoration, and appears to have a new signification, of more formal character and well defined. Several explanations of its exact function have been proposed, as, for example, that it forms part of a religious procession by water, the women with upraised arms being onlookers in the act of adoration or of religious dancing, but we may ask why women only, and not men, should be portrayed in this act and observe that, while boat-processions of the gods are well known in the time of the New Empire, it is most improbable that ceremonies so highly organized were performed in that primitive age, and, even if they were, they could hardly be considered as of material service to the dead man, so a function more nearly related to his personal needs must be sought for. In this search the most prominent feature meeting us is the almost general portrayal on the boats of ensigns, now commonly accepted as ancestors of the later nome-signs; it is noteworthy that, according to Newberry's summing-up[2], four-fifths of the ensigns are referable to Delta nomes, mostly of the west, the great majority being of the Harpoon-nome, which he has shown good reason to think was of outstanding importance at this time as a centre of ship-traffic with the countries of the Eastern Mediterranean. Further, the jars are found in graves throughout Upper Egypt, from Gizah to Nubia, though most common in Middle Egypt, and, if they were made for the dead of all the country alike, we should expect the great majority to be referable, from their ensigns, to Middle and Upper Egypt, whereas the contrary is the case. When to this fact we add the comparative rarity of the jars, averaging, according to Newberry's census, about two per thousand in graves explored, it becomes certain that they were not used by all men in general but only for a special category, mostly from the Delta. These were probably travelling traders; the object of the painted boats was to convey them on their death, magically, to some desired destination, certainly not to a heaven, for none existed then for them, and so it must have been an earthly spot, in fact, as we shall see, their native home; the purpose of the ensign was to make clear the destination of the boat, this being, in the majority of cases, the Harpoon-nome, a district of voyaging traders who were naturally busy on the Nile as on the sea.

[1] Most probably we have here the link between human fertility and that of crops, by way of cattle, explaining the seeming lasciviousness of so many seasonal rites and customs connected with agriculture. For an account of some of the modern forms of these rites see J. Frazer, *The Golden Bough*, 2nd ed., II, 205–9.

[2] In Liverpool *Annals*, 1913, V, 137–42, with later additions which I have been kindly allowed to note. Newberry adduces the presence of the flamingo in the designs as an additional indication of the northern connexion of these jars, but elsewhere he has depicted the state of Upper Egypt in early times as full of marshes such as the flamingo would haunt; it was probably equally native to both parts of the Egyptian river-land, as were the various antelopes of the designs to the desert-land.

The attraction of the birth-place is to many peoples most powerful and they hold it great hardship to die at a distance from it; they look upon themselves as part of a great whole, a tribe or clan, centred in it, a whole consisting not only of the living members of the clan but, very really, of the dead also, the old and venerable who had so great a share in shaping the fates of the living. Thus the tombs, the dwelling-places of those venerable ones, attained to great importance, and the birth-place became a thing divine—in Egypt even a goddess, under the name *mshnt*. Under the Middle Kingdom the exiled Sinuhe made his greatest moan on the prospect of dying far from his birth-place: "What," asked he, "is a greater matter than that my corpse should be buried in the land where I was born?" In our days Egyptian feeling on the subject is still peculiarly strong: burial in one's own village is the unquestioned norm, it is still an insult to tell a man that he cannot point to his father's tomb, no fate is more dreaded than burial at sea, connexion with one's cradle-place is ardently desired, in death as in life. A remarkable illustration of this feeling existed some thirty years ago, and still perhaps does exist, in the Wâdî Naṭrûn (*Nitria*). Works had been established for some years by the Salt and Soda Company and labour was drawn from the nearest villages in the Nile valley, Kafr Daûd and Beni Salâmah, both remote from urban centres and, like all such villages, of strongly parochial feelings. The workmen, though they spent most of their lives in the wady, never ceased to count themselves as integral parts of their mother-villages and they lived in separate hamlets called respectively after these villages, Kafr Daûd and Beni Salâmah. They carried these feelings to such a point that they would always, if possible, prevent a birth or death from taking place in the wady; those about to die and women on the point of childbirth were hurried over the desert to their distant mother-village. If attachment to birth-place can go so far to-day, after millennia of destructive cultural influences, it must have been strong indeed in predynastic times, but in them the man dying far from his native home could have no hope of reaching it alive; he was buried where he died, but with the consolation that, by means of the magic boats, he could at least be carried spiritually to the beloved spot, his destination being ensured by the ensign so emphatically displayed. His wattle hut, whose shape is reflected in the cabins on the boat, is sometimes indicated on the jars (*Prehistoric Egypt*, § 44) as is the wild ox or antelope which is to serve as part of his funerary provision. He is guarded, too, by the kindly mother-goddess, fulfilling her world-wide function of protectress of the dead, her image, with arms outstretched protectingly, being often added on the magic jar[1].

Though the boat designs are characteristic of the Middle Predynastic period, rare examples have been found in the preceding age, painted cleanly and vigorously in white line[2]—thus early had river traffic begun—but in the Middle period, with its constant contact with other cultures, whether by Syria or Palestine or over the Red Sea, this traffic was greatly increased and the jars painted with boats take a regular place in the funerary customs of the country.

The designs, if the interpretations suggested above are correct, indicate no longer a mainly hunting race, as do those of the Early Period, but a settled people, practising regular trade, for whom the hunter as food-getter was only an auxiliary; still, though agriculture had become the vital industry of the country, it was not yet sufficiently

[1] See *Journal*, xv, 36.

[2] *Prehistoric Egypt*, Pl. xv, no. 49 and Pl. xxiii, 2 (from *L'Anthropologie*, 1898, Pl. iii); also jar no. 53881 in the British Museum, illustrated in *Journal*, xiv, Pl. xxvi and 263. Several features characteristic of the Middle Period appear sporadically in the Early: see Frankfort, *Studies*, i, 99.

organized to gain the place in the funerary designs that it did, so abundantly, on the later tomb-walls; the hunter doubtless still procured valuable supplements to the grain-food of the country and the animals which he pursued are depicted on the jars, but often quite subordinately. The delay between the establishment of agriculture and its recognition in funerary designs has two probable chief causes, the ingrained conservatism of man in social and funerary matters and the fact that hunters, men of strength and decision, still formed the aristocracy of that age, the corn-grower taking the same position with regard to them as, in Europe, the industrialist of last century took with regard to the landed gentry. The hunter's high status lasted long, as we see from the protodynastic monuments in which the king, leader though he was in an outstandingly agricultural state, was still represented as a mighty chief in hunting—witness the votive palettes illustrated in Capart, *Débuts* (1st ed.), Pl. i, and figs. 155 and 156 and, perhaps, 157 and 158; the high officials of the Middle Kingdom and later, with their usual ambition, imitated the king and are depicted on the walls of their tombs as great hunters, though often, doubtless, mostly sedentary scribes, if the portrait-statues, of at any rate the New Empire, with their rolls of fat, do not malign them[1].

Let us now turn to the other human element occasionally depicted on the jars, the men. They are of rare occurrence and, if we may judge by the tall jar in Berlin Museum, No. 13831, illustrated by Schäfer and Andrae (*Die Kunst des alten Orients*, 192), they represent hunters, for the men there depicted appear to be slaughtering giraffes, and in most scenes where they appear they are apparently armed with clubs: in this case they are just auxiliaries for procuring food for the defunct. On the other hand they may perhaps have been the painted representatives of the figures of men in the round found in tombs, of which characteristic examples are published in the frontispiece of *Prehistoric Egypt*; these may be held to represent dead ancestors, protectors of their descendants, an explanation borne out by the attitude of a rare figure of a man, in baked clay, in the British Museum (see *Journal*, xv, 36 and Pl. vi, no. 5), which has the arms stretched out in exactly the same way as the broad-hipped female figures identified in that article with the mother-goddess as protectress of the dead. There is every reason to believe that in the earliest stages of Egyptian culture ancestor-cult was as strong as it is to-day in most primitive peoples, running parallel, through many generations, with that of the mother-goddess, and that if it never attained to the rank of official religion, as it did in the Far East, the reason was its subordination to the later official cults, first the Osirian—though that was, in essence, founded on it—and next the solar. Nevertheless it constituted the veritable foundation of the vast system of funerary practices that so overweighted Egyptian life and has left its traces all through Egyptian culture (see my article in *Ancient Egypt*, 1929, Part iv).

[1] In their maintenance of the idea of hunters as aristocrats they may be compared with the rich *parvenus* who, even till the present century, considered the costly purveyance of sport as an important, indeed almost necessary step for their social ambitions. But the ambition of the Egyptian worthy, though doubtless savouring of the social, was primarily religious, to rank when dead with kings and thus become a fit candidate for the paradise which was once reserved for royalty alone.

Another touch of unreality in the hunting scenes may be noted: despite the faithful observation usually shown in the representation of wild beasts, we frequently find among them such strange monsters as the griffin and the serpent-necked pard, relics of savage imagination, as well as the fallow deer, unknown, as the strange rendering of the antlers would alone inform us, in their time, if not always. (See Max Hilzheimer in Borchardt's *Das Grabdenkmal des Königs Śaḥu-reʿ*, II, 169–171. For further light on this obscure subject we must await the publication of the much truncated fragment of an antler found in peculiar surroundings by Petrie's expedition at Ḳâw in 1923.)

With regard to the waved lines so commonly painted on the jars, there can be little doubt that they should be interpreted as water, which was recognized in Egypt from very early times as an essential element for life and for fertility, and so, of course, indispensable in the After-world as in this: later, too, this sign became the hieroglyph for water.

Another element in the jar-designs deserving of notice is the figure of the bandy-legged dwarf. This is very rare in pot-decoration and perhaps the example from Naḳâdah in the Cairo Museum, no. 11557, is unique (see fig. 1 and 2, after Quibell, *Cat. of Archaic Objects in the Cairo Museum*, Pl. xxii); the jar itself is unusual, with a large central mouth and four subsidiary small ones round it; it is of the red-on-buff class, of the Middle Predynastic period. The dwarf-figure here appears for the first time, it would seem, in Egyptian art; it was rare and remained so in the following age, but it was probably not wholly absent, for it appears again in the earliest protodynastic times

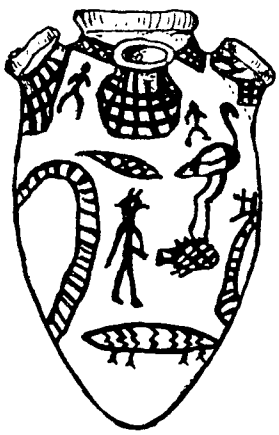


Fig. 1.

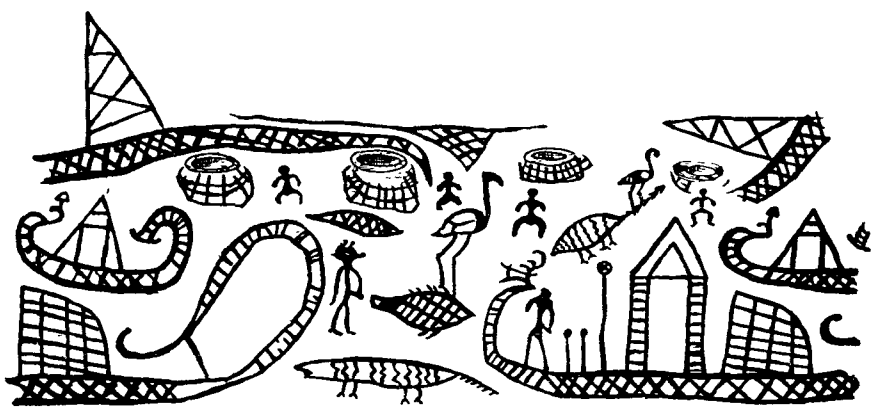


Fig. 2.

in the ivory figurines found in the main temple-deposit at Hierakonpolis[1] and, in female form, in one of the group of ivory figurines in the British Museum, no. 32144, illustrated in the *Guide to the Egyptian Collections*, 24, fig. 8, to which reference has been made by me in *Journal*, xv, 37, as showing a Mesopotamian connection[2]. Some of the impish figures on button-shaped and other seal-like amulets of the First Intermediate period, generally running or dancing, often inverted, as on Mesopotamian cylinder-seals, may perhaps be inspired by the dwarf (Petrie's *Buttons and Design Scarabs*, Pl. i, 27–29, etc.); he appears as an amulet in this period, placed by Brunton in the Eighth Dynasty (*Qau and Badari*, II, Pl. xciii, P. 3 and, perhaps, P. 6 of the Sixth Dynasty; see also Vol. I, Pls. xxxii and xxxiii), and on a scarab of the Hyksos period (Newberry, *Scarabs*, Pl. xxv, no. 11). The figure of the bow-legged Bes, so popular in later times, was doubtless largely founded on that of the dwarf and eventually took its place; he, like the Mesopotamian figure, never attained to the rank of true godship but remained a mere godling, though an important one, as did the equally popular Taurt, and, like her, he was concerned with childbirth.

[1] *Hierakonpolis*, I, Pls. xi and xviii (9).

[2] Two similar examples were in the MacGregor collection, see Capart, *op. cit.*, fig. 122. A very crude specimen, apparently of the First Dynasty, was found at Abydos and also one male example (*Abydos*, II, Pls. v, 48, and x, 213).

The dwarf had his place in magic, of which Mr. Warren Dawson gives two instances from papyri[1]; the first, from the Leyden Pap., I, 348, p. 12, lines 2–6, is called the "spell of the dwarf" and consists, according to the amended translation with which he has kindly supplied me, of an incantation which was to be recited "four times over a dwarf of clay to be placed on the top of the head of a woman who is giving birth"; the second is in the Harris Magic Papyrus and consists of the following invocation: "O thou dwarf of heaven! thou dwarf whose face is big, whose back is long and whose legs are short." The dwarf is here a creature of mystery with magic powers for the facilitation of childbirth, and his connection with Bes, the genius attendant on these occasions, is explained; he is not a natural human dwarf like those shown on the monuments[2], who are treated in every way like normal beings, and it is very possible that his origin may be the human embryo, always a favourite element of magic, and that in the course of time he became confused, somewhat naturally, with the familiar achondroplastic man. The amuletic 'twins' are probably a fortified form of the dwarf. Bes being intimately connected with childbirth, it is not very surprising that he should be made to assume certain motherly duties such as that of suckling, of which an amusing instance is afforded by the group illustrated in Pl. ix, fig. 2, from a private collection; it is in frit with green glaze splashed with black but with most of the colour degraded; height $4\frac{3}{4}$ inches; of late date; Bes holds on his lap a Horus-like child and gives it the breast, a crouching baboon is between his knees, two others are at his back and one at each side. The base of the group was a lotus flower, which at this time was a symbol of Isis as well as of Horus; it is now broken away but traces are left at the back. A cylindrical hole, nearly half an inch in diameter, was bored from the bottom some way up into the group which would thus seem to have been fixed to the top of a

[1] In "Pygmies, Dwarfs and Hunchbacks in Ancient Egypt" in *Annals of Medical History*, IX, 315–326 (see 324). Here are collected accounts of many dwarfs and representations of dwarfs, with medical details and numerous illustrations. The passage from the Harris papyrus is given in full by Max Muller, *Egyptian Mythology*, 22.

[2] The stelae of two deformed dwarfs were discovered in the tomb of King Semerkhet of the First Dynasty and the remains of two buried in that tomb (*Royal Tombs* I, 3, and Pl. XXXV, nos. 36 and 37). Others are known from statues in the Cairo Museum: they appear to have been familiar figures, employed at times for the fashioning of jewelry, as may be seen in the Fifth Dynasty tomb of Ptahhotep at Sakkarah or in that of Anta (Petrie, *Deshasheh*, 8, and Pl. xiii; Pl. v shows a dwarf standing on the prow of a boat and apparently about to use a sling). Dwarfs, not ill-shapen, seem also to have been employed as temple-beadles (Naville, *The Festival Hall of Osorkon*, II, 30–31). Several early monuments of dwarfs are known, mostly of men in responsible positions; one of them, Seneb, discovered by the Expedition of the Vienna Academy of Science, 1926-7 (*The Times*, April 7th, 1927) was a superintendent of dwarfs, a man of property, married to a lady of rank, Sentites ("royal acquaintance"). Another, Khnumhotep, was in a responsible position as "keeper of the wardrobe"; Maspero even called him a "nobleman", and devoted a chapter to him and dwarfs in general (*Egyptian Art*, transl., 85 ff.). An alabaster figure of a dwarf was found in Tutʿankhamūn's tomb, a girl steering a boat, published in *The Illustrated London News*, July 6th, 1929, 12–13; the technical description of the deformity, *achondroplasia*, is there given by a leader of the medical profession, but hardly seems to apply to the girl as illustrated; in this opinion I have the support of Warren Dawson, who rightly insists, in his paper on dwarfs, on the distinction to be drawn between the deformed native dwarfs (*nmw*) and the well-formed pygmies (*dng*), probably Nyam-nyams from the South, so prized by Egyptian kings from early times. He thinks that the girl in question was of the latter class, for she has negroid hair and is well formed but for her legs, which the artist has apparently found difficult to manage in the space at his disposal, for he has ended by adopting an achondroplastic convention. Finally Brunton tells me that he recently found at Badari some osseous remains of a dwarf with true *achondroplasia*.

rod, perhaps a ceremonial one. This manifestation of Bes will recall the jars in his shape, also of late date, which seem to connect him with the giving of milk[1]; at this time too, if not earlier, he is connected with fertility rites as seen in the "Bes chambers" found at Saḳḳârah[2] where the grossly phallic figures of the godling, with their female companions, show him to have served as a magic instrument for the promotion of human fertility.

The ivory figurine of a dwarf mentioned above (p. 14) pointed to Mesopotamia, and there we shall find him often engraved on cylinder-seals, as a phylactic charm commonly associated with the crouching ape—another link, perhaps, with Egypt—and with the nude goddess; an example exhibiting all three is shown in Pl. ix, fig. 1[3]: from this association we may infer that the dwarf was connected with motherhood, the more so since he is sometimes in company with the frog, which in Egypt symbolized fecundity (see *Hyksos and Israelite Cities*, 31–2)—probably through its connection with water, the great fertilizer—and may have had the same signification in Mesopotamia also, where it appears as early, according to Langdon, as 3500 B.C. (*Art and Archaeology*, XXVI, 168). Though literature is silent on the case we can hardly doubt that some very old principle common to Egypt and Mesopotamia underlies the concept of these three figures, ape, dwarf and frog, and that it may be associated with the mother-goddess.

Another popular cult-figure, Ptah-Sukur[4], may be supposed to owe his dwarf shape and bowed legs to the earlier mascot, from whom indeed he may be a derivative, adopted syncretically into the Memphite system of theology, probably at a late date: with this figure we may couple the late one of the deified sage, Imhotep.

One of the most common elements in the designs on the jars of the Middle Predynastic period is the spiral coil which sometimes fills in voids in the scheme of decoration, but more often constitutes its sole element. It has been explained as skeuomorphic, representing a coiled reed-plait used to guard from breakage during transport the stone jars which were the prototype of the majority of the pots of this period; but the stone vessels were heavy and very precious, fashioned with much labour, and could hardly have been intended for uses requiring frequent transport; further, the coils themselves are of all sizes and are dotted about on all parts of the jars on which they occur; as subsidiary elements, when placed round the rim, they become concentric semicircles. Before finally accepting this interpretation it would seem well to ask whether a more likely one can be found. It may be possible that the designs represent coils of rope, for rope, with its immense powers of assistance to primitive man, must have appeared to his simple mind as a thing of great magic, superhuman and good to arm himself with in the Afterworld as in this; an actual example of a rope thus coiled may be seen in the representation of a ship in the *mastaba* of Peḥenuka, of

[1] See *Journal*, XV, 46, no. 3. Figures of Bes suckling Horus similar to the one illustrated are in the British Museum, nos. 11820, 26267 and 27375, described as of the Twenty-Sixth Dynasty and as serving as tops of wands. There is also one in the Ashmolean Museum, no. 839 (1872). The connection of Bes with the mother goddess is apparently indicated again in the fragment of a terra-cotta plaque in the British Museum illustrated in the *Guide to Greek and Roman Life*, 39, fig. 28, where she is portrayed in a shrine, nude, between two figures of the godling.

[2] See Quibell, *Excavations at Saqqara*, I, 12–14.

[3] From Delaporte, *Cylindres orientaux du Louvre* (by kind permission), Pl. 82, no. 9. On a cylinder-seal published in *Journal*, VIII, 209 and Pl. viii, no 3, by Sidney Smith, an ape alone is shown.

[4] The vocalization of *Sukur* is adopted in accordance with Sayce's suggestions recorded in *Journal*, VIII, 208 (Cylinder no. 2).

the Fifth Dynasty, now in Berlin[1]. Support for this suggestion may be found in the fact that many peoples, even to-day, attribute magic power to cords tied in knots[2], and that this superstition was current in ancient Egypt, where one of the very signs for "protection" is a row of knots on a rope, the hobbling-rope *sa*. In certain passages of the Pyramid Texts it is said that the king "knots the cord" (§§ 399 c and 514 a) or that it is knotted for him (§ 373 c); the words are referred by some to the tying up of boats and by others to the ceremonial lassoing of a bull; the latter explanation seems authorized by § 286 e, which speaks of the king's lassoing, and the former by § 1742 b—"the ropes are tied and the boats brought together for..."; in any case the knotting was ceremonial and must have been indued, in the beliefs of those days, with magic power. Again, Miss Murray has shown (*Ancient Egypt*, 1922, 14–19) that the early draughtsmen refrained from depicting knots in detail but simply recorded general impressions of them, for fear of their magic qualities. These qualities are equally evident in nets, compact as they are of knots; they are still used in Egypt as a prophylactic charm; sorcery is much feared by young men in the period preceding marriage, especially the spells purporting to cause them to fail in their marital duty; on such occasions they will often wear nets next to their skin to avert the evil. Nets, too, composed the dress of the rowing virgins who were to divert King Snefru from his sadness in one of the tales of King Cheops and the magicians (Westcar Pap.); they had a magic virtue and could hardly have been prescribed by the sorcerer, as has sometimes been suggested, to rejoice the king with the sight of the girls' uncovered beauty, for that was at his command, of course, at any time; rather they served to keep off the evil influences causing the king's melancholy. The network of beads laid on the breasts of mummies served likewise to guard against evil powers and it seems probable that in this idea we can find the connection between the words *šnw*, 'network', and *šni*, 'exorcise'[3].

With knots we may place the spiral coil, a common element of decoration in many phases of art; an excellent example of an interlaced closed spiral, formed from the

[1] See Borchardt, *Śaḥu-reʿ*, II, 165, fig. 24. Sails rolled on an unstepped mast and ending in similar coils are shown in a low-relief of the Eighteenth Dynasty illustrated by Wreszinski, *Atlas*, I, Pl. 287. Rolls of papyrus rope for binding a boat in the process of building are depicted in *Deshasheh*, Pl. V; they are coiled in a different pattern.

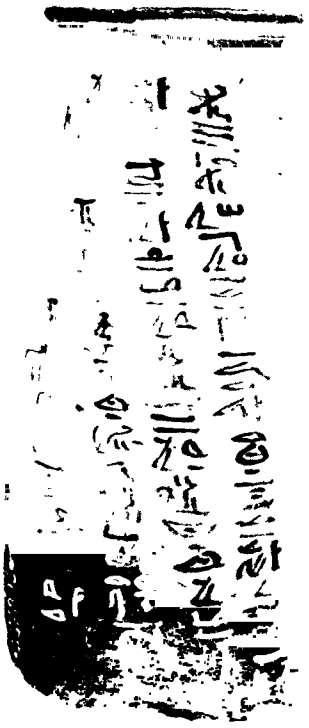
[2] Superstitions about knots are common in many lands; knotted cords occur freely as amulets in Egypt as well as in Mesopotamia and have actually been found in tombs (see Petrie, *Amulets*, 29, no. 131; see also Warren Dawson, *Magician and Leech*, 67, 71 and 129). The seven-knotted cord was used in Babylonia against *Labartu* (now sometimes read as *Lamaštu*), the grisly witch-monster who, like her Egyptian counterpart, snatched babies from their cots (see *Ancient Egypt*, III, 68); in a neighbouring country, Arabia, we have the verse in the last chapter of the Koran aimed at witches "who blow on knots" (see also Sale's note).

For knots in general see R. Campbell Thompson, *Semitic Magic*, *passim* (*v. Index*) and Frazer, *The Golden Bough* (2nd ed.), I, 394 ff., who gives parallels to the modern Egyptian custom recorded above and makes it clear that while knots and nets in magic are objects of fear for their inhibitory powers, they are also often credited with great protective virtue.

The so widespread pastime of string-figures ('cat's cradles') must have its roots deep in magic; when we note how the Eskimo make certain figures to accompany their songs which themselves have a magic purpose, for fishing, hunting, etc., and further that there are taboos connected with some figures (see K. Haddon, *Cat's Cradles*, XV), we have every reason to think that magically they serve, or once did serve, as complicated developments of the knot.

[3] Gardiner, *Grammar*, 506, V 1.

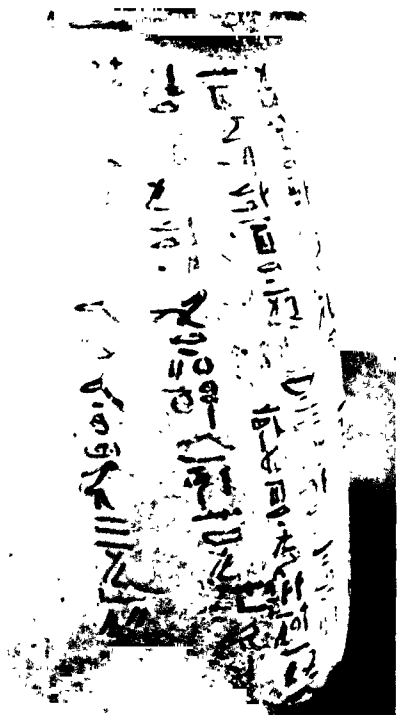
coiling of a rope and used as a decoration on a red-on-buff jar, is illustrated in *Ancient Egypt*, 1928, iii, 68–69; we may well surmise that it was introduced by the artist as a useful talisman for the defunct. In the same place an illustration is given of a very early rope- or wire-design from Mesopotamia, on a golden 'seal' (more probably an amulet) of Queen Shub-ad. To this may be added another on a cylinder-seal found in the A Cemetery of Kish and illustrated in E. Mackay's *Report*, Pl. vi, no. 16; the design is formed by an interlaced arrangement of two equal lengths of cord in loops; it was probably of talismanic nature, for the earliest engraved cylinders seem to have been amuletic, consisting of cylindrical beads, such as are common in ancient Mesopotamia, made apotropaic by the engraving on them of designs of magico-religious import. None of the specimens from Kish bore names, which in the earliest periods are exceedingly rare; they were perhaps added at first as an assurance that the protective powers of the amulet should be concentrated on its owner; the use as seals would be a later development and even then they would retain much of their original magic power. The earliest Egyptian engraved cylinders seem also to be apotropaic, many being clearly destined only for funerary service.



1



2



3



4

1—3. A "Letter to the Dead" in the Haskell Museum of Chicago. *Scale c.* $\frac{1}{4}$.

4 Statuette in the Berlin Museum (Inv. No. 14,517). *Scale c.* $\frac{1}{10}$.

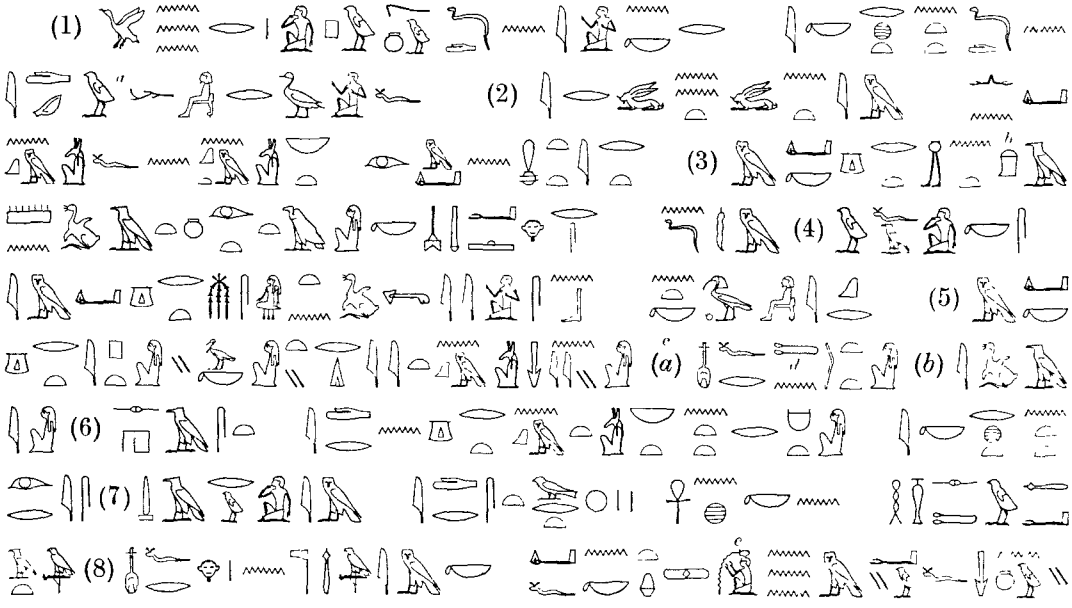
# A NEW LETTER TO THE DEAD

By ALAN H. GARDINER

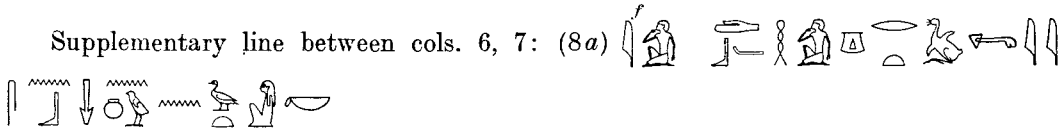
With Plate x, figs. 1–3.

It is a true and surprising fact that new types of Egyptian antiquities, like troubles, never come singly; and an annoying variation of this fact is that never does an Egyptologist publish a book on any topic without some fresh piece of relevant material coming to his knowledge too late for inclusion. The subject of the present article is a hitherto unknown and particularly fine "letter to the dead" belonging to the Haskell Oriental Museum in Chicago, where it bears the number 13945. Permission to publish this was most kindly given to me by Professor Breasted, who also provided the excellent photographs reproduced in Plate x. Like several of the other letters of the same category published by Professor Sethe and myself in our joint work *Egyptian Letters to the Dead* (London, Egypt Exploration Society, 1928) the new example is inscribed in bold and typical hieratic of the First Intermediate Period (between the Sixth and Eleventh Dynasties) on a vessel of red pottery; but contrary to custom, that vessel is here a jar-stand without bottom, and with a lip at the top. The dimensions are: height 23 cm., diameter at top 9 cm., diameter at bottom 12·5 cm.

The eight vertical columns of hieratic, with a short additional column (8*a*) between cols. 6 and 7, are so clearly legible in the Plate that no hand-facsimile is needful. There are one or two palaeographic difficulties, but on the whole the decipherment is plain sailing. The hand closely resembles that of the Ḳâw bowl (*op. cit.*, Pls. 2, 3). The text runs as follows:




3 2

Supplementary line between cols. 6, 7: (8*a*) 

[a]  has a different form everywhere else in this text, but there seems no alternative;  has its characteristic form, and is certainly not . [b]  seems very probable, there being a faint cross-stroke which makes  impossible;  is certain. [c] The column divides into two parts, as often at this period. [d]  is badly made, and open at the left side. [e] A quite abnormal form, for which analogies are found in the Gebelên coffin at Turin (G 1 T 61 and the ornamental text on the back) and, as Sethe points out Steindorff, *Grabfunde*, II, Pl. 18. [f] Deleted signs.

## Translation.

(1) *This is an oral reminder of that which I said to thee in reference to myself:—"Thou knowest that Idu said in reference to his son:* (2) *'As to whatever there may be yonder (?), I will not allow him to be afflicted of any affliction'. Do thou unto me the like thereof!"* (3) *Behold now there is brought (to thee) this vessel in respect of which thy mother is to make litigation. It were agreeable* (4) *that thou shouldst support her. Cause now that there be born to me a healthy male child. Thou art an excellent Spirit.* (5) *And behold, as for those two, the serving-maids who have caused Seny to be afflicted, (namely) Nefertjentet and Itjai,* (6) *confound(?) them, and destroy for me every affliction which is (directed) against my wife; for thou knowest that I have* (7) *need thereof(?). Destroy it utterly! As thou livest for me, the Great one shall praise thee,* (8) *and the face of the Great God shall be glad over thee; he shall give thee pure bread with his two hands.*

Additional remark:—(8 *a*) *Moreover I beg a second healthy male child for thy daughter.*

## Commentary.

To those who have studied the letters to the dead published in the volume by Sethe and myself—references to which will frequently be made below without specially naming it—no great insistence on the similar form exhibited by the new Chicago specimen will be necessary. The opening recalls the Cairo text on linen and the Ḳâw bowl; the central portion here, as everywhere else, contains the gist of the writer's petition and mention of the persons whose malevolent influence he is suspecting; the promise of reward to the deceased addressee, if the petition be granted, is paralleled by the Berlin bowl. Thus the formalism characteristic of all Egyptian art which Dr. de Buck has recently discussed so ably in his inaugural address to the students of Leyden University is once again illustrated most convincingly in this new accession to an otherwise entirely individual class of writings. The Chicago letter also displays that vague and allusive fashion of designating the *personae dramatis* which is typical of the class. There can be no doubt but that the unnamed writer of the letter is addressing his dead father; thus much is indicated by the precedent which he quotes from the lips of a certain Idu whose identity is entirely obscure. "Thy mother" in l. 3 must be the writer's paternal grandmother. The writer's wife is obviously the Seny of l. 5: this is shown by *ḥmt·(i)* "my wife" in l. 6. In l. 8 *a* an additional request is made on behalf of "thy daughter," and the logic of the situation seems to show that this must be the writer's sister. Whether the two

evilly-disposed serving-maids mentioned in l. 5 were dead or still alive when the letter was written does nót emerge.

What is entirely new in the Chicago letter is the appeal to a dead parent for male offspring. The maxims of Ptaḥḥotpe and Ani, among other of the ancient writings, had already taught us that the desire of the ancient Egyptians for sons was no less strong than that felt by their modern descendants. But the adoption of this particular method of satisfying the desire is a novelty. As if for the very purpose of corroborating the thesis with which I started my article, a little figure of a woman carrying a child and bearing the inscription "*May a birth be given unto thy daughter Śeḥ*" has just come to light in the Berlin collection, and is discussed in a note by Dr. Siegfried Schott appended below (see Pl. , 4). It seems likely that this figure was deposited in the tomb of a deceased father in the expectation that he would use his power in the netherworld to secure fulfilment of the offerer's wish.

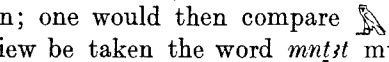
In the philological notes which follow reference is made to some interpretations by Professor Sethe. On becoming acquainted with the Chicago text I sent a transcript thereof to my co-author in the book on the letters of the dead, and was glad to find that in most points our translations of the new specimen agreed with one another.

Line 1. *Tnw-r*, see *op. cit.*, p. 14; the determinative  only here. For , suffix 1st pers. sing., whereas everywhere else in the text the suffix is omitted, *cf.* the Ḳâw bowl, II, 4 (with the note), our view of which is thus happily confirmed. How the sign  in the proper name is to be explained I do not know. In my opinion it is quite impossible to read  "Idu the younger."

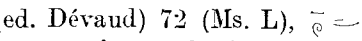
2. It seems necessary to take *wnnt* and *wnt* as respectively the imperfective and the perfective participles, fem. in reference to a neuter notion, and perhaps intended to cover all contingencies—"what is and may be yonder." *'Im*, i.e. in the netherworld, as in the phrase *ntyw ỉm*. I take this obscure little phrase to be a deprecatory or sceptical qualification of Idu's promise to guard his son from sorrow; he cannot be sure what powers he will possess beyond the grave. It is unusual grammatically to find a phrase introduced by *ỉr* "as to" without resumptive pronoun in the main clause.

*Nḳm*, with the det.  found at this period for *mr* "be painful" and *ỉnḏ* "pain" (see on III, 3), is not rare in the magical texts for "suffer," "be afflicted," *e.g.* in the Metternich stela, l. 6, where it is certainly contrasted with *rśw* "rejoice," but I doubt whether the rendering *traurig sein* of the Berlin *Wörterbuch* quite hits the mark; in the Pyramids  or  is used only of a diseased condition of the hair (521, 2055, 2056), but is parallel to *mr* "be ill." I prefer to consider it almost synonymous with this last verb.

*'Ir m n·(ỉ) mỉtt ỉrt* is doubtless a part of the speech to his father which the writer now recalls, but not a part of the speech of Idu. *Mỉtt ỉrt*, see my *Eg. Gramm.*, 88, n. 1.

3. It is difficult to believe in  as a writing of the demonstrative adjective, but there seems no alternative. *Mnṯśt* is a rare word, of which the only example available to me at the moment is on the Turin altar bearing the cartouche of Phiops (*Trans. Soc. Bibl. Arch.*, III, 117) where the addition  "water" confirms the rendering *Schale für Wasser* given by *Wb.* But the natural way of interpreting the first sentence of l. 3 is to take it as referring to the vessel, together with its inscription, on which our letter is written; one would then compare  in *Sinuhe*, B 181. If this view be taken the word *mnṯśt* must have a wider significance, "pottery vessel" or the like, for as I have stated, the Chicago letter is written on a jar-stand.

*'Irt mwt·k wḏʿ mdw ḥr·ś* is difficult of interpretation. Sethe suggested as a rendering *diesen Krug...der von deiner Mutter gemacht worden ist, damit deswegen gerichtet werde.* But *irt wḏʿ mdw* as a phrase occurs in II, 9 (see the note thereon) and in other texts of this period, and if a past action had been meant, would not *irt·n* have been written? The form *irt* has every likelihood of being Gunn's prospective relative. If, therefore, we must render in some such way as "in respect of (*or* over) which thy mother is to (*or* will) make litigation" the writer must be anticipating an intervention on his behalf by his paternal grandmother. The clause, it must be confessed, is very obscure.

4. My translation assumes the standpoint adopted at the end of the last note. Sethe, translating *Angenehm wäre es, wenn du ihm zustimmtest,* takes the suffix *·ś* to refer to *tȝ mnṯȝt,* not to *mwt·k.* Still, for a personal suffix after *wfȝ* one can quote *Ptaḥḥotpe* (ed. Dévaud) 72 (Ms. L), . *Wb.* is certainly right in its remark on *wfȝ*: "*z. J. sicher beistimmen.*" The evidence for the word is collected in my *Notes on...Sinuhe,* p. 31.

5. Since *ỉpt(y)* not only stands before its noun, which is apparently unknown elsewhere, but also has the determinatives , it seems better to render "those two, (namely) the serving-maids," with *bȝkty* in apposition.  as perf. act. part. is unusual in writing out the *y,* but this may be due to the form being a dual.

In writing the names of the two servants as Neferjentet and Itjai instead of Neferthentet and Ithai I formally renounce my previous practice. Steindorff has rightly introduced *tj* for  in the new English Bädeker's Egypt. *Tj* is both nearer the probable original pronunciation, and also suits the fact that  *tj* is to  *t* what  *dj* is to  *d.* Sethe writes with regard to *Nfr-ṯntt*: "*Der Name zeigt dass das Gefäss aus Dendera oder Achmim kommt.*" In favour of the former *provenance* one could quote the name *'Idw* in l. 1; for *'Idw* see Petrie, *Dendereh,* 5. 6, and for *Nfr-ṯntt* see Schäfer-Lange, no. 20568. Still, it was stated when the letter was acquired that it came from Girgah, and the information seemed better assured than many other indications of the kind.

6. *Zhȝ* as a transitive verb is unknown to me elsewhere; for its intransitive use, with some such meaning as "be in confusion", see the note in my *Admonitions,* p. 28. *'Idr,* imperative, here and in l. 7, is commonly so written in the Pyramid Texts.

6–7.  *ḏȝrw* is a word for "need," see my note, *Journal,* IX, 18, n. 8. It is, however, very difficult to say what the entire clause *ntt irr·ỉ ḏȝrw ỉm* here means. In the translation I have suggested "that I have need thereof." But at least equally probable would be "that I am doing the needful therein," *i.e.* helping as much as I can. Possibly neither of these suggestions hits the mark.

7. The identity of the "Great Goddess" is uncertain. If the vessel really came from Denderah, she would of course be Hathor.

8. *T wrḥ* is common in Eleventh Dynasty formulae of offering; see Polotsky, *Zu den Inschriften der 11. Dynastie,* § 79, i.

8*a*. *Dbḥ* doubtless first person, not imperative. If the deleted signs are really , the writer will have begun to address his father by name (*cf.* 1), but will have thought better of it, being deterred by the lack of space.

# DIE BITTE UM EIN KIND AUF EINER GRABFIGUR DES FRÜHEN MITTLEREN REICHES

VON SIEGFRIED SCHOTT

Hierzu Tafel x, 4.

An der Figur einer Frau (Taf. x, 4), die auf der linken Hüfte ein Kind trägt, des Berliner Museums[1] aus der Zeit des frühen Mittleren Reiches ist auf dem rechten Oberschenkel folgende Inschrift angebracht:



"Möge eine Geburt gegeben werden Deiner Tochter *Śḥ*." Die Verstümmelung der beiden Vögel der Inschrift zeigt, daß die Figur in ein Grab—da der Vater angeredet ist—in das Grab des Vaters der *Śḥ* gegeben wurde. Die Figur ist einer der sogenannten "Beischläferinnen" und als solche unbekleidet, geschmückt und beinlos. Auf einer zweiten[2] ähnlichen Figur des Berliner Museums fehlt die Inschrift. Der Sinn der Gabe ist wohl der folgende: Wie diese Figur einer Beischläferin des Toten ein Kind hat, soll auch seiner Tochter *Śḥ* ein Kind geschenkt werden. Die Tochter selbst oder ihre Familie hat dem Vater Beischläferin und Kind geschenkt, damit er nun seinerseits mit der ganzen Macht eines zauberkräftigen Toten für die gewünschte Geburt sorge. Da die Bitte weder in der imperativischen Form "Gieb!" noch in der 2. Person "Mögest Du geben!" abgefasst ist, scheint an eine direkte Zeugung durch den Toten nicht gedacht zu sein.

[1] Inv. No. 14517. Höhe der Figur 12 cm.: aus dem Handel.
[2] Inv. No. 12764.

# REGARDING RECEIPTS IN THE ZENON ARCHIVE

By W. L. WESTERMANN.

In the recent years of active publication of the Zenon papyri Professor Girolamo Vitelli and Mr. C. C. Edgar have presented from the Zenon archive twenty-three receipts of a particular type for small amounts of money paid to farmers upon the estate of Apollonius, with one acknowledgment of receipt of ten axes[1]. All of them are dated in the year 29 of Ptolemy Philadelphus[2]. All of those which are fully preserved are in duplicate, and the same duplicate form is to be assumed for the fragmentary receipts P. Cairo Zenon I 59138 and 59139. The upper, or concealed, text was folded, tied with a knotted piece of papyrus with a clay seal over the cord[3]. The lower text alone was visible. To this list I add the following three receipts from the Zenon papyri in the library of Columbia University.

P. Columbia Inv. no. 220.

January 24, 256 B.C. Philadelphia.

5 in. × 3 in.

The document came to Columbia University with the upper text still unopened and seal in place. About three quarters of the seal was preserved. The figure upon the seal seems to be that of a ram's head with horn curling downward and to the left over the neck. According to W. F. Edgerton a sun disk may possibly be identified over the ram's head. The writing, which is the same in both texts, is crude. It runs across the fibres. The inner text is not so carefully done as the outer one. Note line 2 and the omission of εἰς before ἐνπυρισμόν in line 4. Edgar has noted this carelessness as characteristic of a number of the inner texts[4].

(ἔτους) κθ̣ Χοιὰχ ᾱ. ἔχει Ἐρι-
ξυλο
εὺς Ἐριέως εἰς κοπίαν
τῆς κοπάδος δάνειον
(ἀρουρῶν) γ ἀν(ὰ) (τετρώβολον), (γίνονται) (δραχμαὶ) β, καὶ ἐνπυ-
ρισμὸν (ἀρουρῶν) γ ἀν(ὰ) (τετρώβολον), (γίνονται) (δραχμαὶ) β.

(Space of $\frac{5}{8}$ inch.)

(ἔτους) κθ̣ Χοιὰχ ᾱ. ἔχει Ἐριεὺς
Ἐριέως εἰς ξυλοκοπί-
αν τῆς κοπάδος δάνειον

[1] P.S.I. IV, 338.

[2] Including P.S.I. IV, 323, which the editors originally dated in the year 21. See Vitelli in P.S.I. VI, *Addenda et Corrigenda*, X. The list is P.S.I. IV, 323, 336, 337, 338, 339; V, 506, 507; VI, 560; P. Cairo Zenon, I, 59102, 59103, 59104, 59111, 59113, 59114, 59115, 59116, 59117, 59118, 59119, 59127, 59128, 59137, 59138, 59139.

[3] Edgar has published photographs of three of these in the original state with the upper, or inner, text unopened, in P. Cairo Zenon, I, Pl. XXII.

[4] P. Cairo Zenon, I, 59104.

(ἀρουρῶν) γ ἀν(ὰ) (τετρώβολον), (γίνονται) (δραχμαὶ) β, καὶ
εἰς ἐνπυρισμ[ὸ]ν (ἀρουρῶν) γ ἀν(ὰ) (τετρώβολον),
(γίνονται) (δραχμαὶ) β.

"Year 29, Choiak 1. Erieus, son of Erieus, has received as loan for cutting out the brushwood upon three arouras, at four obols, total two drachmas, and for burning upon three arouras, at four obols, total two drachmas."

The three arouras of lines 4 and 5 are the same. The pay for the work is at four obols per aroura for each of the two operations. The translation for κοπάς given in Preisigke's *Wörterbuch*, "pruned olive tree[1]," based presumably upon several references to Theophrastus in which the word occurs, is quite inapplicable here. In P.S.I. IV, 323, P. Cairo Zenon, I, 59116, 59117, 59118, in P. Col. Inv. no. 270, 11[2] and here, the word means "brushwood."

P. Columbia Inv. no. 285.

March 4, 256 B.C. Philadelphia.

2 in. × 3¼ in.

The document was originally in duplicate, but only the tops of three letters of the outer text show upon the fragment as we have it. Two fragments of the clay seal still cling upon the verso, but the figure is not distinguishable. The writing is that of a practised clerk and runs with the fibres.

(ἔτους) κθ Τῦβι ι. ἔχει
Ἀρχίβιος εἰς ξυλοκοπίαν
ἀρουρῶν γ δραχμὰς ἑπτὰ τριώ-
βολον.
(Space of ¾ inch.)
ἔ]χει.

Line 4 is shredded badly at the right end, but no traces of further lettering appear.

"Year 29, Tybi 1. Archibius has received seven drachmas three obols for chopping out wood upon three arouras."

P. Columbia Inv. no. 215.

Oct. 18, 257 B.C. Philadelphia.

5¾ in. × 4 in.

This receipt was written by one of the practised clerks of the farm administration. The hand is small and fine, the writing along the fibres. About three quarters of the clay seal remain, with papyrus cord attached. The figure upon the seal cannot be interpreted.

βασιλεύοντος Πτολεμαίου τοῦ
Πτολεμαίου Σωτῆρος (ἔτους) κθ Μεσορὴ
κγ. ὁμολογεῖ Πᾶσις Σαποῦτος
διὰ Ἡγησίου
(Space of ½ inch.)
ἔχειν παρὰ Πανακέστορος τοῦ
παρ' Ἀπολλωνίου ε[ἰ]ς ξυλοκοπίαν
καὶ ἐμπυρισμ[ὸ]ν (ἀρουρῶν) β (δραχμὰς) ε.
(Space of 1 inch.)

[1] "Gestutzter Ölbaum" in Preisigke, *s.v.*

[2] Published in *Memoirs of the American Academy in Rome*, VI (1927).

βασιλεύοντος Πτολεμαίου τοῦ Πτο-
λεμαίου Σ[ω]τῆρος (ἔτους) κθ Μεσορὴ κγ.
ὁμολογεῖ Πᾶσις Σαποῦτος διὰ
Ἡγησίου
ἔχειν παρὰ Πανακέστορος τοῦ
παρ' Ἀπολλωνίου εἰς ξυλοκοπίαν
καὶ ἐμπυρισμὸν (ἀρουρῶν) β (δραχμὰς) πέντε.

The lower version (outer text) is followed by a demotic version of three lines. Two of these are at the bottom of the recto, the third upon the verso. The sheet was inverted to write the line upon the verso, so that it is directly opposite the last demotic line at the bottom of the recto. Spiegelberg has translated the demotic versions of the similar receipts P.S.I. 338 and 337 in P.S.I. IX, 1010 B and C. P. Cairo Zenon, I, 59012 also has a demotic version following the Greek text (see Edgar's Plate xxii).

"In the reign of Ptolemy, son of Ptolemy Soter, year 29, Mesore 23. Pasis, son of Sapous, through Hegesias acknowledges receipt from Panacestor, agent of Apollonius, of five drachmas for chopping out wood and burning upon two arouras."

The operation of *ξυλοκοπία* was a part of the original preparation of the land to fit it for cultivation[1] by cutting out the brushwood and its roots. The work was done with axes[2] and corresponds to what is called "grubbing" in American farm parlance. The brush and roots were then gotten rid of by burning (*ἐμπυρισμός*).

The larger part of the receipts of this type have been published since M. Schnebel completed his book upon Egyptian agriculture in the Hellenistic and Roman period. The new evidence confirms his view that the process of cutting and burning the brushwood was not a part of the yearly field operations such as were the plowing, sowing, weeding and harvesting[3]. This is strongly indicated by the fact that all of the extant *ξυλοκοπία* receipts are of the year 29 of Ptolemy Philadelphus. Panacestor, who was still managing from Philadelphia the gift estate of the dioecetes, Apollonius, was laying out in that year numerous small sums of money for wages and loans in order that the process of clearing the land for cultivation might be completed. This money Apollonius must furnish: and there is recent evidence that the busy finance minister found the demands of Panacestor irritating. On Choiak 30 of year 29 Panacestor wrote to Zenon stating that he had no money and needed some to carry on, for the planting of the croton and sesame, for the cutting out of the brushwood (*εἰς τὴν ξυλοκοπίαν*) and for moving the wheat[4]. Four and a half months later, on Pachon 15, Panacestor wrote to Zenon, who was at Alexandria with Apollonius, asking that Zenon use his influence with the great man in Panacestor's behalf. Panacestor appended copies of two letters. The first was a brief letter of Apollonius in which he called Panacestor sharply to task: "I am struck with amazement at your neglect in that you have written nothing, either in regard to the estimate of the crops or in regard to the collecting of the wheat. Even now, therefore, write me what the situation is in both respects[5]." The second appended letter is the long reply of twenty-two lines from Panacestor to Apollonius, containing explanations and stating among other things

[1] Michael Schnebel, *Die Landwirtschaft im hellenistischen Aegypten*, I, 20–24.

[2] In P.S.I. V, 506 a farmer receipts for ten axes which were loaned him by Panacestor for the purpose of cutting out brushwood.

[3] As opposed to my own earlier view presented with the publication of P. Wisconsin, I, in *Journal*, IX, 86–87.

[4] P.S.I. V, 499.

[5] *Ibid.*, V, 502.

that he had been occupied with measuring the land planted to sesame and the land covered with brushwood (*τὴν ξυλῖτιν*)[1]. It is refreshing to note that Panacestor denies with a rather fine dignity the charge of neglecting his duties. C. C. Edgar has recently published a fragmentary letter of the Zenon archive which he regards as probably connected with this incident and as being written by Apollonius to Panacestor[2]. The formula of salutation, names of the writer and of the person addressed and the customary docket on the verso, which usually gives a date, are all lost. Nevertheless I think that Edgar is right in ascribing the letter to Apollonius and regarding the addressee as Panacestor. The gist of the first eleven lines is apparent despite their broken condition. The writer expresses his displeasure that shrubby land (*ξυλῖτις*) should appear among that formerly listed (as cultivable?), "and that too when we have expended so much upon the (brushwood?)[3]." It is clear that the writer, whether Apollonius or not, considered that when the land had once been cleared of brushwood growth, it should not be necessary to repeat the operation.

Additional information upon the point comes from P. Columbia Inv. no. 270. It is a lease of 100 arouras made out in the year 30 of Ptolemy II by three Greeks. They had taken over the land from Zenon, who had succeeded Panacestor as agent of Apollonius in charge of the estate near Philadelphia. Zenon agreed to make to the three lessees a number of advances in kind and money, at a fixed amount per aroura in all cases. The advances were to include seed grain in wheat and barley, expense money, and advance for weeding—both of these reckoned in barley at so much per aroura—and for grubbing, if brushwood should be found growing upon the land, as much as might be agreed upon to be a sufficient advance upon each aroura[4]. All of these advances were to be repaid to Zenon by the lessees at the time when they paid the rent, and without any interest charge. It is clear that the need of seed grain, expense money and money for weeding was regarded as constant and annually recurring, as Schnebel has explained. The necessity of an advance to meet the expense of *ξυλοκοπία* was contingent upon whether the land was originally overgrown with shrubbery or not, or upon the care with which the work of eliminating brush and roots had already been done. The primary task in the whole process of reclaiming the new land in the Fayum had been the great engineering problem executed by the government of Ptolemy II of rebuilding the dam at the entrance of the Fayum and of canal excavation and dike construction connected with the requirement of irrigating the land[5]. By accepting the grant of his 10,000 arouras Apollonius had assumed the responsibility of crop returns from it as soon as possible. A part of the estate was farmed directly by the estate management under the guidance of Panacestor[6]. For the remainder of it the immediate need was to get the proper type of farmers to take over the land and to enable these farmers to function. Those who could be obtained to undertake the

[1] *Ibid.*, v, 27–29.

[2] P. Cairo Zenon, III, 59387.

[3] *Ibid.*, 10–11, *καὶ ταῦτα το[σοῦτον ἀργύριον?] ἀνηλωκότων ἡμῶν εἰς τὴν κ[* . For this last word I suggest *κ[οπάδα.*

[4] P. Col. Inv. no. 270, I, 9–12, in *Mem. Am. Acad. in Rome*, VI (1927). The essential words are *καὶ εἰς ξυλοκοπίαν ἐὰν ἐμπίπτηι κοπὰς ὅσον ἂν συγκριθῆ ἱκανὸν εἶναι διδόσθαι εἰς ἑκάστην ἀρουρῶν.* My original translation of *ἐὰν ἐμπίπτηι κοπάς*, "if brushwood develops," gives a wrong impression. In P. Cairo Zenon, III, 59517 there is a record of payments to twelve men for working at the "brush, overrunning" the land, *εἰς τὴν ἐπιτρέχουσαν κοπάδα.*

[5] Paul Viereck, *Philadelphia*, Leipzig (1928), 30; M. Rostovtzeff, *A Large Estate in Egypt in the Third Century B.C.*, Madison (Wisconsin), 1922, 2.

[6] C. C. Edgar in P. Cairo Zenon, II, 59292 *introd.* and Westermann in *Mem. Am. Acad. in Rome*, VI (1927), 13.

obligations of tenantry were either men of Greek name who leased large tracts from Apollonius and farmed upon a large scale as illustrated by P. Col. Inv. no. 270[1], or Egyptian farmers who rented small tracts from the manager Panacestor or his successor, Zenon, and did their own farming. The Egyptian farmers certainly, in many cases also the Greek big lessees, had not the requisite capital to finance in its entirety either the immediate work of clearing the land (*ξυλοκοπία*, or *ξυλοκοπία τῆς κοπάδος*) or the necessary annual tasks of cropping the cleared land, namely the planting, sowing, weeding, harvesting, and moving the produce. To meet this situation a definite policy of advancing to the farmers small loans in money or in its grain equivalents was followed by the management of the Apollonius estate. This was not a new thing. In the Revenue Laws of Ptolemy Philadelphus, which were passed in year 27, the government had made provision for supplying sesame and croton seed to the cultivators, who were compelled to set out these oil producing plants in the interest of the government monopoly of oil manufacture[2]. This regulation may have been passed solely in the interest of the government control of the entire process of oil production. Lille Papyrus 5, however, which is of the same year as the Revenue Papyrus, supplies unmistakable evidence that the Ptolemaic government was advancing wheat, barley and hay seed to the royal peasants[3]. One of these was to receive one artab of seed wheat per aroura, the consideration being that he should cut out the brushwood and clear the land at his own expense[4]. The practice on the part of the government of advancing the seed may possibly be explained as a necessary economic measure based upon the government's desire to obtain a good return from the state lands by providing a good quality of seed. If this be the case the provision of seed would have to be ascribed to the same policy of enlightened self-interest which urged the Egyptian autocracy, both under the Ptolemies and under the Romans, to prescribe the exact types of crops to be cultivated upon the lands which the state peasants rented from it, in the interest of conservation of the soil through enforcement of a proper crop rotation[5]. But it is more probable that the practice must be ascribed to an actual lack of the seed or of the capital requisite to buy it. At least the receipts for advances for labour, which we are discussing, can only be explained on the basis of lack of funds with which to start the farm operations.

Twelve government orders of the year 35 of Ptolemy II have been published recently which have a connexion with the receipts of the Zenon group[6]. They are orders of higher officials in the government hierarchy to officials of lower rank to advance old wheat, old barley, or mixed wheat and barley as loans to military settlers (cleruchs). In these orders there is no specification regarding an interest charge. In six cases these loans were made, without further explanation, for *κάτεργον*. In two cases the loans are made as *δάνεια εἰς κάτεργον* and for the gathering of the autumn sesame[7]; in one case for "seed" and the

[1] Generally these Greeks sub-leased the land, hence acted as middlemen lessees. *Cf.* Paul Viereck on the custom of sub-leasing by the cleruchs in his *Philadelphia*, 26.

[2] Bernard P. Grenfell, *Revenue Laws of Ptolemy Philadelphus*, Oxford, 1896, XLI, 14–19. *Cf.* P. Petrie, II, 39 (a) and the corrections and note upon it in III, 88.

[3] Jouguet, Collart, Lesquier, *Papyrus Grecs de Lille* (P. Lille), Paris, 1928, 5.

[4] *Ibid*, 22–24. One artab of seed per aroura was, and continued to be, the most usual allowance made by the government to the farmers of state land in Egypt, although differences from this ratio have been noted. See Schnebel, *Die Landwirtschaft*, 126.

[5] *Ibid.*, 127–29.

[6] P. Lille, I, 39–50.

[7] P. Lille, I, 41, 42.

κάτεργον[1]; in another case for κάτεργον and ποιολογία[2]; and in P. Lille, I, 49 the loan is for *xylocopia* without κάτεργον expressed. The word κάτεργον is difficult of interpretation in the Lille documents. It is not the loan itself (which is expressed as δάνειον). The meaning seems to be given in P. Ham. 24 lines 10, 13, 18. This is a *syngraphe* of the third century B.C. in which a military allotment holder acknowledges receipt of two drachmas per aroura on his holding as κάτεργον and promises to pay back the κάτεργον when he turns in the sesame crop which he is cultivating. Since it is to be paid back, the word κάτεργον cannot refer to a field operation. It seems to mean "expense money," like the advance made in barley in the Zenon lease, P. Col. Inv. 270, 10, which is said to be "for expense outlay" (εἰς ἀνήλωμα) and where the ἀνήλωμα is distinctly an *expenditure* upon one of the farm operations. The weeding and the cutting out of the brush are mentioned separately. The δάνειον εἰς κάτεργον in the Lille documents must, therefore, be regarded as a loan "for outlays" in the preparation of the soil[3].

The confusion which has existed in regard to the Panacestor-Zenon duplicate receipts of the year 29, as to whether they are loans or payments for wages[4], can be easily resolved. In analysing the receipts of that year it became apparent to me that there were two types[5], one a receipt for wages paid, the other a receipt for a loan. Upon the land of Apollonius' estate which was being farmed directly by him, Panacestor hired the labour for cutting out the brushwood and burning the brush, at a regular rate of two drachmas and a half per aroura when his agreement was made on the piecework basis. When he leased plots to small farmers he was accustomed to make advances of money to them which carried no interest charge and were payable at the time when the rent was due. This money the farmers needed to help them pay for the labour which they hired to clear the land. The rate which Panacestor had fixed for these loans to his indigent lessees was four obols to the aroura. The receipts P. Col. Inv. nos. 285 and 215 are therefore of the wage receipt type[6]. No. 220 is of the loan type (δάνειον in line 3)[7].

[1] P. Lille, I, 50.

[2] P. Lille, I, 47. On the basis of a passage in P. Lille, I, 5, 12, M. Schnebel has decided, with the editors of the Lille volume, that ποιολογία was a type of labour connected with making the land arable. The translation in Preisigke, *Wortbuch*, though thoroughly justified etymologically, does not apply in the Lille documents. See Schnebel, *Landwirtschaft*, 23–24, 214–15. To Schnebel's agricultural argument the fact is to be added that the κάτεργον of P. Lille, 45 is identified as ποιολογία on the verso of the same document.

[3] So also the editors of P. Lille, I, 39–50 translate δάνειον εἰς κάτεργον as "prêt pour frais de travaux sur leurs terres" although they had previously (p. 192) expressed a preference for interpreting the word κάτεργον in the sense of a farm task.

[4] Stated by Edgar in the introduction to P. Cairo Zenon, I, 59117. Professor Vitelli called the loan published as P.S.I. IV, 323 a *ricevuta di salario*, explaining it as an advance payment of wages.

[5] As suggested by Edgar, *loc. cit.*

[6] The other clear examples of wages for grubbing and burning at $2\frac{1}{2}$ drachmas per aroura are P.S.I. IV, 339; P. Cairo Zenon, I, 59104, 59127. P.S.I. IV, 338 is probably also a wage receipt for this work. Although the amount per aroura is not given the total is 12 drachmas 3 obols which would be at the rate of 2 drachmas 3 obols on 5 arouras. A farmer with the same name, Phernouthis (see P.S.I. IX, 1010 A, note 1), had received his advance for grubbing and burning on his rented land in P. Cairo Zenon, I, 59116.

[7] The clear examples at 4 obols per aroura for grubbing and burning are P.S.I. IV, 323; P. Cairo Zenon, I, 59116, 59117, 59118. In P. Cairo Zenon, 59116 the fact that it is a δάνειον is not expressed. In the three others the word δάνειον occurs. If the two operations of grubbing and burning are mentioned separately the rate of the advance for each type of work is the same. See P. Cairo Zenon, I, 59117, 59118, and P. Col. Inv. no. 220 above.

Among this group of receipts of year 29 there are two acknowledgments of money received for weeding (*εἰς βοτανισμόν*)[1]. These must also be regarded as loans similar to the advances without interest for eliminating the brush and roots, although they are not so classified by the use of the word *δάνειον*. In P. Cairo Zenon 59128 the farmer acknowledges receipt of eight drachmas total "for weeding of his own land" (therefore a loan); and in P. Cairo Zenon, I, 59119, the rate for weeding is at two obols per aroura which is a half of the rate of the loans for grubbing and burning. This exact difference between the heavy work done by men and the lighter work of weeding, which can be done by boys, has already been established for the Zenon period[2].

The advances of seed were made in kind[3], and grain might also be advanced in lieu of money to assist the farmers in having their labour done[4]. In one instance a loan made to one Nicias for the purpose of repairing embankments[5] was made at the rate of an obol per man for each of ten men working. One obol per day was the customary wage for heavy farm labour in the time of Zenon; but we are not justified in assuming that the full pay of these dike workers was met by the loan, because we cannot know how many days they were expected to work to complete the task of repairing the embankments. A comparison of the wages paid for hacking out and burning brush in our receipts with the money loaned to assist the farmers in having the work done, shows a ratio of about four to one. That is, the wages paid were at the rate of fifteen obols per aroura, but the advances were only four obols per aroura. It is clear, therefore, that the advances were in the nature of assistance and encouragement in having the work done, but did not meet the full cost of the labour.

[1] P. Cairo Zenon, I, 59119, 59128.

[2] P. Lond. Inv. no. 2313, and P. Wisconsin, I in *Journal*, IX, 1923, 90.

[3] P. Cairo Zenon, I, 59113, 59114.

[4] P. Cairo Zenon, I, 59113, *ἔχει σπέρμα κρ(ιθῶν) ἀρ(τάβας) τρεῖ[ς] καὶ δάνειον κρ(ιθῶν) ἀρ(τάβας) τρεῖς.*

[5] P. Cairo Zenon, I, 59111.



1



2



3

1 and 2 Fragments of a kneeling figure in limestone of Ramesses II. Cairo, No 42,143. *Scale of No. 2, c.* $\frac{1}{5}$.

3 Kneeling figure in schist of Ramesses II. Cairo, No 42,142. *Scale* $\frac{1}{5}$.

# A NOTE ON THE CORONATION RITES IN ANCIENT EGYPT

By MILITZA MATTHIEW

With Plate xi

Among the statuettes of the Cairo Museum are some which represent a crawling Pharaoh pushing before him his name written in sculptured hieroglyphs. Thus we have Ramesses II[1], crawling and pushing a square base on which three figures are sitting, those of Rēʿ, Amūn and a child; under them the sign ⟛ is represented, the whole giving the name of the Pharaoh[2]. The meaning of this statuette is explained by two others—42143 and 42142.

Of 42143[3] (Pl. xi, figs. 1 and 2) only fragments are left, but they are sufficient. Here, too, was represented a crawling Ramesses II, pushing before him his sculptured name; the base of this statuette is decorated with branches of *persea*, on the leaves of which the cartouches of the king are written.

We find similar *persea* leaves with names of the king on the base of the statue of Ramesses II, 42142[4], also crawling (Pl. xi, fig. 3). The object which the Pharaoh held in his hand is lost, but I have no doubt that it was the sculptured representation of his name. In style and workmanship this statue is the best of all. Legrain, describing it, mentions that the form of the name is that used in the early part of Ramesses II's reign and that the king himself is, doubtless, very young.

The inscription on this statuette (as well as those on the others), the form of the name, the age of the king, and especially the *persea* branches bearing cartouches—all this would seem to indicate the event on the occasion of which these statuettes were made, namely, the coronation. It is known that at the coronation the name of the new king, or rather the whole of his new titulature, was solemnly proclaimed and then written by the gods on the leaves of the sacred *persea* of Heliopolis[5]. This moment, like that of placing the crown on the king's head, was one of the most important in all the ceremony. With this rite was probably connected the presentation of the king's name to the god. The king (as often when presenting an offering) crawled towards the god, slowly pushing before him either the sculptured representation of his name, or his cartouches, etc.

This fact is confirmed not only by our statuettes, but also by reliefs. Thus, on one fragment[6] of a relief Amenophis III is shown crawling towards a sitting deity (Amūn?). He holds in his outstretched hand two cartouches attached to a complex handle. Statuettes like the above were consecrated in remembrance of this rite, as can also be

[1] Legrain, *Statues et statuettes*, II, No. 42144, Pl. vi.

[2] *Op. cit.*, 9. [3] *Op. cit.*, Pl. v. [4] *Op. cit.*, Pl. iv.

[5] Moret, *Du caractère religieux de la royauté pharaonique*, 102; Lefébure, *L'arbre sacré d'Héliopolis*, in *Sphinx*, v; Erman-Ranke, *Aegypten*, 396.

[6] Prisse, *Monuments*, XI, 5.

seen from the reliefs. Among the scenes in the Subû' temple there is a representation of a statue of Ramesses II[1] holding his name in his hand in front of a statue of Tefnut[2]. The inscription clearly shows that here we have the coronation rites.

We know that statues were also consecrated in commemoration of other moments of the coronation festival. In the Cairo Museum there is a group representing the placing of crowns on the king's head by Horus and Seth(?)[3]. Among the scenes in the temple of Amenophis III at Luxor we see the king presenting incense to Amūn; behind him stands one of the priests holding a small statue imitating the action of the king[4]. Such statuettes, consecrated in remembrance of different moments of rites, were usually brought to the god along with the other offerings[5].

The importance of the king's presentation of his name to the god is very great—we have but to recall the prominent place held by name-magic in ancient Egypt to realize the significance of this rite. The knowledge of the name of a god or of a man gave the magician complete power over him. The supreme importance of the inscribed name as a means of procuring eternal life is universally known, as well as the fact that the Egyptian believed his name to be just as essential a part of himself as his body, his soul, his double and his shadow.

Taking all this into consideration we may say that, in performing the rite of giving his name to the god, the king placed himself entirely in the power of that god and at the same time secured for himself eternal life, since his name, taken by the god, was believed to be preserved on the sacred *persea* of Heliopolis. Just as Bata lived so long as his heart was inaccessible on the top of the tree, so the Egyptian king hoped to live eternally, having placed his name on the sacred Heliopolitan tree, where the names of the gods themselves flourished[6].

[1] L., *D.*, III, 182*e*.
[2] That it is a statue and not a living king is shown by the base under the figure.
[3] Borchardt, *Statuen und Statuetten*, II, No. 629, Bl. 116.
[4] Gayet, *Le temple de Louxor*, fig. 125.
[5] *Op. cit.*, figs. 104 and 105.
[6] Lefébure, *op. cit.*, 6.

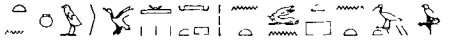
# THE SECRET CHAMBERS OF THE SANCTUARY OF THOTH

By F. W. GREEN

The various explanations suggested as to the meaning of this phrase in the Westcar papyrus seem to me hardly satisfactory. Dr. Alan Gardiner in his interesting article in *Journal*, XI, 2–5, gives the translation put as title to this note. I do not think, however, that this is all that can be made out, and so put forward the following suggestion, having regard to the story itself rather than to the philology.

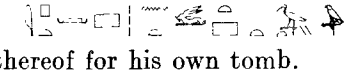
I venture to think that the writer of the story as it now stands did not really know what the mysterious *ỉpwt* were. In order to bring forward certain points relevant to the conclusion I wish to draw, I give a shortened and somewhat free rendering of certain passages though they may be familiar to the reader.

After the recital of the wonders done by the magicians of old times, *Ḥrddf* arose and spoke saying, "We have heard about the magicians of the past and their doings, the truth of which we cannot verify. Now I know of things done in your time." Pharaoh Khufu asks what they are. *Ḥrddf* says there is a commoner, *Ḏdy* by name, who resides in *Ḏd-Śnfrw*...he knows how to replace a decapitated head, tame a lion...he also knows



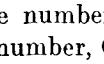
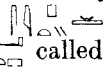
the number of the *pḏwt* of the chamber of Thoth.

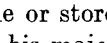
Now his majesty Khufu had been engaged for some time seeking for the



that he might make a copy thereof for his own tomb.

Here instead of *pḏwt*, something stretched, we have *ỉpwt*, something like "account," "plan." The writer seems to be confused, and uses indiscriminately two words of somewhat similar sound which may also have conveyed to him somewhat similar ideas, such as a stretched string for marking a wall, and a succession of lines in list form.

To proceed with the story. *Ḏdy* is summoned to the court with every mark of respect that he may impart the knowledge to the Pharaoh. On his arrival his powers are tested by various practical demonstrations to the complete satisfaction of Khufu, who then says, "How about the report that you know the number of the  of the chamber of Thoth?" Then *Ḏdy* said, "I know not the number, O King, but I know the place they are in." Then his majesty said, "Where then?" Then *Ḏdy* said, "There is a flint box in the  called  in Heliopolis, it (or they) are in the box."

The  called  may be "chart room" or perhaps "Drawing Office" where plans were made or stored.

Then his majesty said, "Go and bring it to me." Then *Ḏdy* said, "My lord, I may not bring it." Then his majesty said, "Who will bring it to me?" *Ḏdy* replies, "The eldest of the three children yet in the womb of *Rwḏḏd·t*.....destined to hold the supreme office

[1] Whether the determinative be the seal or the harim sign does not affect my argument.

in all this land." In other words the sceptre will pass away from Khufu's dynasty. Khufu is naturally cast down at the news, but is consoled by *Ddy*, who tells him it will not happen till after the time of his grandson. Then follows the well-known story of the miraculous birth of the three children, whose names are those, but thinly veiled, of the first three Pharaohs of the Fifth Dynasty. That is, the *ỉpwt* are brought by the new dynasty.

The earlier pyramids may for all practical purposes be said to be uninscribed; the doorways in the pyramid of Zoser hardly count. But with the incoming of the Fifth Dynasty a great break with this traditional austerity takes place: large stretches of wall are covered with ordered columns of magical utterances, in more or less set sequence; and in each pyramid the text follows more or less one original scheme.

I suggest that the scheme or plan of these utterances rather than the design of the chambers is the mysterious *ỉpwt*.

These long lines of religious texts, set out in certain order, were something quite out of the way, and the report of them and of their magical value must have impressed those who were living at the time of their execution, and a rather hazy account was handed down to the compiler of the Westcar text. He could not have seen the pyramid texts himself; they were closed up.

The text of Chap. LXIV of the Book of the Dead was found written in blue on a brick or slab, whatever that may mean, in a temple of Thoth; a somewhat similar case. And it may not be amiss to note that all modern editors of the pyramid texts have been compelled to number the speeches.

It may be argued, of course, that Khufu did not embellish his "horizon" with these magical formulae as he doubtless would have done could he have come by the "sealed patterns"; but after all the Westcar papyrus is not an historical document, and further, the end of the story, which may have explained matters, is unfortunately missing.

# THE RELATIONSHIP OF AMŪN TO ZEUS AND HIS CONNEXION WITH METEORITES

By G. A. WAINWRIGHT

In the spring of last year I published an article[1] which I venture to hope sufficiently proved that Amūn of Thebes was a god of the air, a sky-god; that his sacred object at Thebes was a meteorite; that he was intimately connected with, if not actually derived from, his far older neighbour Min, the thunderbolt-god of Koptos; and that the omphalos of Zeus-Ammon[2] at the Oasis of Ammonium (Sîwah) had of itself certain characteristics which associate it with the weather. I am now able in the present article to draw attention to three further points which are of considerable importance for substantiating this view of Amūn.

The first is to be found in the well-known identification of Amūn with Zeus, the sky-god, or, as more commonly conceived, the thunder-god of the Greeks.

It now turns out that this was no mere view of syncretizing Greek travellers and students of the classical period. Nor yet was it due to some supposed local variation in the Libyan Ammon of Sîwah and Cyrenaica, which might have made possible the approximation of two gods who were essentially different. We now get back behind Zeus-Ammon of Libya, who is late, and find that the identification had been made direct between Zeus and Amūn of Thebes himself, and at a date that long precedes the appearance of the Libyan Ammon upon the scene. Some thirty years ago the late Dr. Hogarth dug out the Dictaean Cave in Crete; one of the holiest spots for the Zeus worshipper; the place where Zeus was born; where he begot his son Minos; and finally where he gave him the law[3]. Here were found many hundreds of votive objects including nearly five hundred bronzes. These included nineteen human figurines, one of which was a statuette of Amen-Rēʿ of the usual Egyptian workmanship and still wearing his high feathers. Dr. Hogarth figures it in his plate and describes it as follows, "A small statuette (Nos. 1, 2), crowned with the plumes of Amen Ra (accidentally bent back), is of good Early New Empire work, and may be held to have been dedicated in the cave about 900 B.C. by an anticipator of the classical identification of Zeus with the Egyptian 'Ammon[4].'" The approximate date is satisfactorily established by the fact that "with very rare and sporadic exceptions the Dictaean antiquities do not come down lower than the Geometric period, *i.e.*, probably the opening of the eighth century B.C.[5]" That this object could have been deposited in this holiest of spots shows that Amūn of Thebes and

[1] Wainwright, *The Aniconic Form of Amon in the New Kingdom*, in *Ann. Serv.*, XXVIII, especially 183–187.

[2] In the writing of Ammon and Zeus-Ammon, a god known to us from Greek sources, the Greek spelling with the double *m* is retained almost perforce, and though it introduces a lack of uniformity into the article it at least serves to distinguish this form of the god from his Egyptian prototype.

[3] Hogarth, *The Dictaean Cave*, in *The Annual of the British School at Athens*, VI, 95.

[4] *Op. cit.*, 107, and Pl. x, figs. 1, 2.

[5] *Op. cit.*, 115.

Zeus had already been identified by that early date. At this time the identification could only have been made because the natures of the two gods were similar, and not as the result of any metaphysical speculations. That Zeus was the sky-god, who ruled the storm and hurled the thunderbolt, is too well known to need emphasizing, and, as remarked at the beginning of this article, there is much evidence to show that Amūn was a very similar god. Even if he left the thunderbolt itself to his near neighbour and relative Min of Koptos, he at least possessed the meteorite, an object that is still commonly confused with it even in Europe to-day[1].

Another point is one that arises from the fact that, a moribund city in Macedonia having been colonized on account of a meteorite's falling there, the head of Zeus-Ammon was put on its new coinage instead of Poseidon's, which that of the old city had borne.

This took place at Cassandria on the peninsula of Pallene, the most westerly of the three claw-like promontories that project from the coast of Macedonia. The original city there had been called Potidaea, had been devoted to the worship of Poseidon[2], after whom it was named, and had put his figure, or that of his trident, on the major part of its coinage from 500 B.C. or even earlier[3]. Its history was very troubled and after Philip of Macedon had captured the city in 358 B.C. the coinage ceases entirely[4]. Later on Cassander founded a new city on the old site, which he called Cassandria after his own name. This was about the year 316 B.C.[5], but it was not until it had received a Roman colony under Augustus that it became sufficiently important to issue coins of its own once more[6]. When it did, however, a most remarkable change is found to have come over the types employed, for the old-established Poseidon is superseded by Zeus-Ammon on the earliest Roman coinage that we possess, *i.e.* that of Claudius, Vespasian and Domitian[7]. However, the old worship of Poseidon could not be crushed entirely, but finally, in the early third century A.D., came back into its own once more. This was on the coins of Caracalla, where Poseidon at last succeeded in displacing the newcomer[8].

What was the influence that was sufficiently strong to impose this new god, Ammon, on one so firmly entrenched in the affections of the people as Poseidon shows himself to have been? It stands to reason that it could have been one of no mean character, but must have been the result of some very signal and notable event. Now, in the history of the occupation of this site we have the record of just such an occurrence as the requirements demand. It came in the fall of a meteorite, which was considered a prodigy of sufficient importance to bring about the settlement at Cassandria of the Roman colony which issued the new Ammon-type of coinage. This portent Pliny refers to in his chapter on stones which fall from the skies. Here he speaks of the famous meteorite which fell

[1] As may easily be discovered by talking to one's friends. For published statements of the fact see G. T. Prior, *A Guide to the Collection of Meteorites* (in the British Museum), 1926, 10; A. S. E. Ackermann, *Popular Fallacies*, 1923, 376.

[2] Herodotus, VIII, ch. 129. *Cf.* Thucydides, IV, ch. 129.

[3] B. V. Head, *A Catalogue of the Greek Coins in the British Museum, Macedonia etc.*, xxxviii, 99, 100; *id.*, *Historia Numorum*, 212.

[4] Id., *Historia Numorum*, 212.

[5] Strabo, *C.* 330, No. 25. For the date see Pauly-Wissowa, *Real-Encyclopädie*, s.v. *Kassandros*, col. 2299.

[6] For the sending of the colony see Pliny, *Nat. Hist.* (ed. Teubner), IV, ch. 10 (17) and II, ch. 58 (59). For the coinage see B. V. Head, *Historia Numorum*, 213.

[7] B. V. Head, *A Catalogue of the Greek Coins in the British Museum, Macedonia etc.*, 65, Nos. 3, 4, 5, 6. Nos 1, 2 show no god at all.

[8] Id., *op. cit.* 66, No. 7.

at Aegospotami, and then goes on to speak of others of which he knows, saying, "and one is worshipped at Cassandria, which city, once called Potidaea, was founded on account of that circumstance[1]." It is evident from this that when attention had been called to the spot by the fall of the meteorite, and the colonists had arrived, they had to look round and decide which deity it was who had sent the sign, in order to place themselves under his protection. Be it noted that although Poseidon's old association with the place still continued, as is shown by their use of his figure and trident in later times, yet it was not to him that they ascribed the divine intervention. It was a form of the sky-god to whom they looked. Had there been nothing to guide them as to which of his manifold forms they should choose, they might have selected any that they happened to fancy; let us say Zeus Κάσιος if they wanted a foreign form, or they might merely have called the stone Zeus Καππώτας, as was done at Gythion[2], and have left it at that. But, by what is an extremely lucky chance for this enquiry, that form of the sky-god which was called Ammon happened to be very well known in the neighbourhood. In the first place he naturally enjoyed considerable prestige in Macedonia and Thrace owing to Alexander's claim to be his son. Then again there had been a good deal of Ptolemaic influence in this part of the world. But over and above all this, which is general in its nature, there is a more particular and at the same time an older connexion between Ammon and this corner of Macedonia. It is, that long before the time of Alexander this god had been firmly established at the neighbouring city of Aphytis only a few miles away. Hence, as his nature was such that it was suitable to ascribe the meteorite to him, it was he who was selected as being very prominently before the eyes of any people in this district who were thinking about sky-gods. His worship had apparently been introduced at Aphytis by the mere chance that it was a Spartan and himself a devotee of Ammon[3] who was besieging the city towards the end of the fifth century B.C. While so engaged he had a dream in which his god appeared to him and told him to raise the siege, which he did, at the same time explaining to the Aphytaeans what had happened and recommending them to sacrifice to Ammon[4]. This they evidently did, and moreover regularly put his head upon their coinage, as has already been pointed out.

Anyhow we are not concerned with the question of how he came to be known in this neighbourhood, but with the fact that here we find Ammon selected as patron deity of a city which worshipped a meteorite, and in fact owed its very colonization to its fall. If the argument in my previous article be correct as to the nature of the sacred object at Thebes, then Cassandria in Macedonia would provide us with a second city where a meteorite served Amūn or Ammon in the capacity of sacred object. This new information, therefore, lends powerful support to the evidence that has already been brought to show that Amūn was a sky-god, a god of the atmosphere, and that his aniconic sacred object at Thebes was indeed a meteorite.

In closing attention may be drawn to one more scrap of information, which now appears in a light that is probably significant, and adds its quota, such as it is, to the rapidly accumulating evidence for the relationship between Zeus-Ammon and the

[1] Pliny, *Nat. Hist.* (ed. Teubner), II, ch. 58 (59).

[2] For a discussion of the meaning of the word and references, see Pauly-Wissowa, *Real-Encyclopadie*, s.v. *Kappotas*.

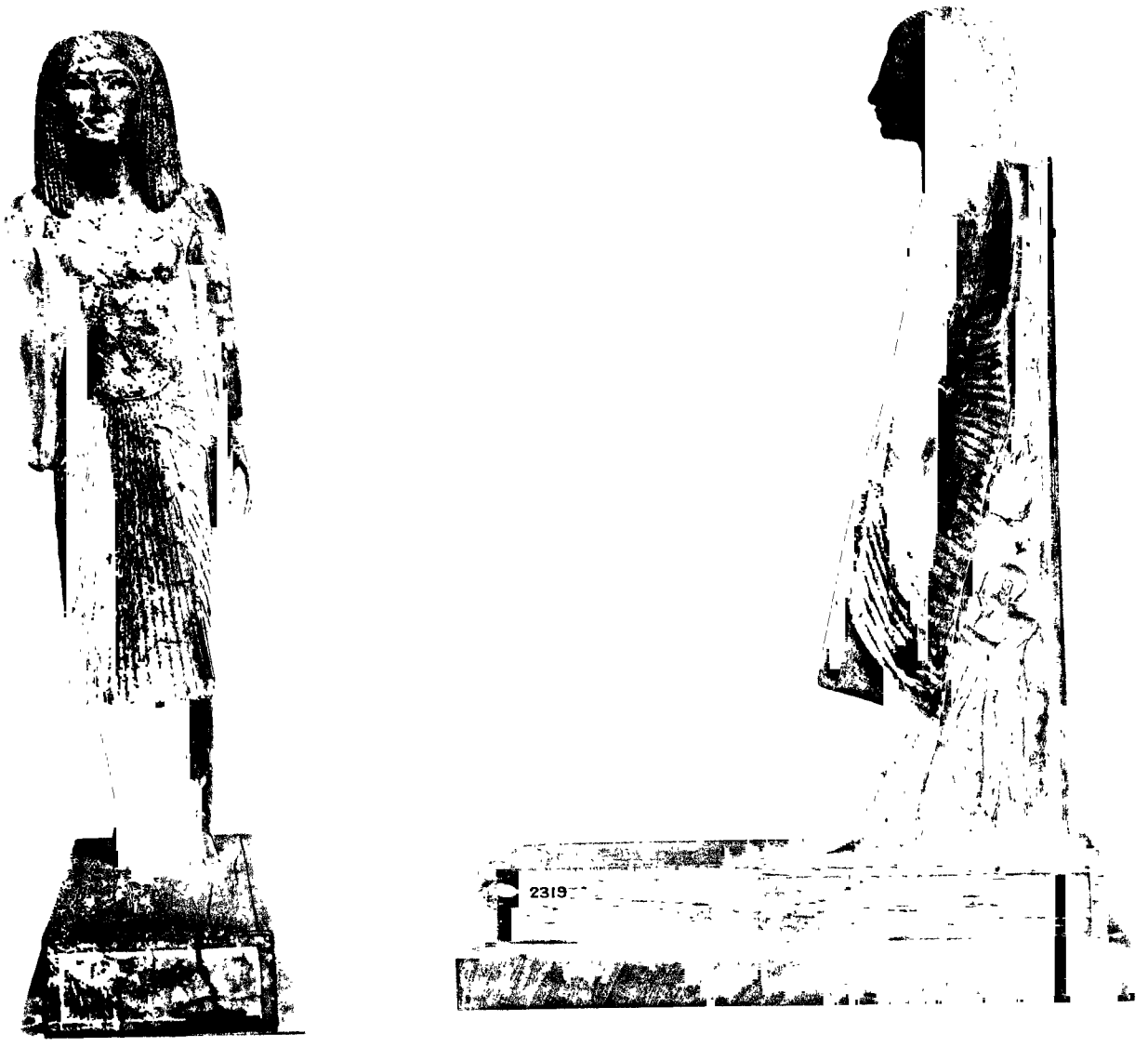
[3] For the devotion of Sparta to Ammon, see A. B. Cook, *Zeus*, I, 351–352. For Lysander's, see the references in the next note.

[4] Plutarch's *Lives*, *Lysander*, § XX: *cf.* also Pausanias, *Description of Greece*, III, ch. 18, § 3.

meteorite. It is to be found in the state of affairs at Gythion, a city of Laconia in the Peloponnesus. Now, it was near this city that there had fallen the well-known "rough stone" already referred to, which was called Zeus Καππώτας "Zeus fallen down[1]," and which, therefore, was clearly a meteorite. In view, then, of all that has gone before it can hardly be mere chance that Gythion was one of those few cities in Greece which possessed a temple dedicated to Zeus-Ammon[2]. Though unfortunately our information does not actually associate the one with the other, yet the presence of both Ammon and the meteorite at one more site is very suggestive and reinforces the numerous pieces of evidence that have already been brought forward indicating a relationship between them.

Adding the information deduced in this article to that contained in my previous one we have now a considerable body of evidence to show in the first place that Amūn's nature was similar to that of Zeus, that they were in fact both sky-gods and that this was the cause of their identification. Secondly it shows that Amūn was a meteorite-god.

[1] Pausanias, *Description of Greece*, III, ch. 22, § 1.
[2] *Op. cit.*, III, ch. 22, § 8.




Wooden figure in the British Museum. No. 2319.

*Scale c.* $\frac{3}{5}$.

# SOME WOODEN FIGURES OF THE EIGHTEENTH AND NINETEENTH DYNASTIES IN THE BRITISH MUSEUM. PART II

By H. R. HALL

With Plates xii–xiv.

In the first part of this article, *Journal*, xv, 236–8, I published a number of the more striking wooden female figures in the British Museum. The second part is devoted to the male figures in the same material.

The dignified gentleman, No. 2319, in his gauffred linen half-dress (with apron, but without the more ceremonious cape which we see in No. 2320, below), and wearing a simple wig of numberless ringlets, or quite possibly his own hair parted in the middle (that was a vogue of Amenophis III's day), appeals to me the most (Pl. xii). The figure of his small son is carved in relief, in the old style, at the side of the plinth of the paternal statuette; he is clad in nothing, not even a necklace or an earring, but has large ring-holes in his ear-lobes. The face of the man has been slightly rubbed, but not in any way to affect the features, which are very fine, as the full-face photograph, Pl. xii, left, shows. It is a most worthy piece of carving, and no doubt more or less of a portrait. The eyes and brows were originally inlaid. The right hand has been broken off above the wrist. The left foot is well advanced: the space between the legs is filled up as a plinth, and on the left side of this the figure of the son is carved. The man stands at the end of a pedestal measuring $11\frac{3}{4}$ ins. (29·8 cm.) long by $3\frac{3}{4}$ ins. (9·5 cm.) wide by $1\frac{5}{8}$ ins. (4·2 cm.) high: on every side there is a raised border av. $\frac{1}{4}$ in. (0·65 cm.) wide. The man's figure is $16\frac{1}{2}$ ins. (41·85 cm.) high, that of the boy $5\frac{5}{8}$ ins. (14·6 cm.). The object is made of a light, rather coarse, wood, covered with gesso painted black to imitate ebony. It is in an excellent state of preservation, with but few cracks. It is not inscribed, but from the style it cannot be later than the earlier part of the reign of Amenophis III.

No. 2320 (Pl. xiii, figs. 1, 2), which belonged to the Salt Collection of 1821, is a more pompous gentleman, and a less interesting one. He wears full dress of gauffred linen with the swinging apron in front and the cape over the upper arms and shoulders. His wig is of the usual duplex type common under the Eighteenth and Nineteenth Dynasties, with the "lappets" of curls hanging in front of the shoulders, which probably originated early in the Eighteenth Dynasty in the wearing by men of a short wig over their own hair (as the women often did), which was canted down from behind the ears in front of the shoulders. His face, of which only the chin is slightly damaged, is uninteresting and has a self-satisfied smirk. Both arms are pendent, but the left hand is extended while the right is clenched to grasp a horizontal staff which has disappeared, leaving as usual merely the hole in the fist to mark its original presence. The left arm has been broken and mended with iron nails in modern times. The feet have both gone, with the pedestal,

otherwise the condition is good, in spite of cracks. The wood is hard. There are traces of paint on the face and wig. The figure stands $11\frac{1}{2}$ ins. (29·35 cm.) high. I should date it to the latter part of the reign of Amenophis III, *c.* 1390 B.C.

Far more interesting is the much damaged but delightful little figure of the noble or dignitary seated on the ground and reading a papyrus-roll (No. 2331; Pl. xiv, figs. 1, 2). It is carved in sycamore-wood. He wears full-dress and the double wig. Whether intended or not, the head, which is bent slightly forward, has a perceptible inclination towards the right shoulder, giving the effect of attention to what is being read. The legs have almost, the left hand has entirely, disappeared. The face is badly mauled. Of the papyrus-roll the end may be seen in Pl. xiv, fig. 1, laid over the reader's right thigh. It is most regrettable that this figure is not in better condition. It is now 4 ins. (10·2 cm.) high. Its date may be placed in the reign of Tuthmosis IV or early in that of Amenophis III (1420–1400 B.C.).

Like 2319, No. 32748 (Pl. xiii, figs. 3, 5), a standing figure, has both arms pendent and the left hand open, the right grasping the head of a staff, carried horizontally. Only the head remains in the usual hole through the fist. This figure's head is clean-shaven and wigless, and he wears only a kilt with a small gauffred flap-apron, cut up rather high in front. The figure is painted red with black mouth, eyes, and brows. The features are rubbed, but in no case can they be regarded as having been anything like a portrait. The figure is of no particular distinction. It is 8 ins. (20·45 cm.) tall and stands at the end of the usual rectangular pedestal, $5\frac{3}{8}$ ins. (13·6 cm.) long by $1\frac{3}{4}$ ins. (4·45 cm.) wide by $\frac{3}{4}$ ins. (1·65 cm.) high, which is of a different and harder wood, and unpainted.

A good but badly preserved figure, No. 2322 (Pl. xiv, figs. 3, 4), from the Salt Collection, 1921, has been dated to the Twenty-second Dynasty on account of the form of the wig, but I think it may equally well be of the Eighteenth Dynasty. The wig is a short bob just below the ears, which are hidden, with the front curls cut away in two, the side-curls in three, steps. The man wears a rather complicated waistclout, without decoration, with a broad band round the waist, and a long tie-end falling down in front on the left side from over the band. Arms and legs are both partly broken off, most being left of the right arm. The face is badly mauled. Eyes and wig were painted black. It is now $9\frac{1}{4}$ ins. (23·5 cm.) tall.

No. 37926 (Pl. xiii, fig. 4), though uninscribed, is really an ushabti, a "rais"-ushabti, but is unusual as an ushabti because the legs are cut free, and though no work of art, is interesting as giving a good idea of costume under the Nineteenth Dynasty. The formal double wig is worn, large wheel ear-studs, a short beard, the gauffred robe with kilt but, apparently, not the cape; and elaborate sandals, which are very large, the feet being out of all proportion to the rest of the figure. The arms are crossed on the breast. The figure is nearly all painted red with the exception of wig, beard, and features which are blue-black, and white vertical bands on the kilt to give the appearance of the gauffring. The figure is roughly cut. The feet were broken off and have been rejoined. There is a long crack down the back. It stands on a small pedestal in one piece with the feet, $1\frac{1}{2}$ ins. (3·85 cm.) square, and is itself $7\frac{1}{4}$ ins. (18·55 cm.) high.

These are all interesting figures, and worthy of note.



1 2



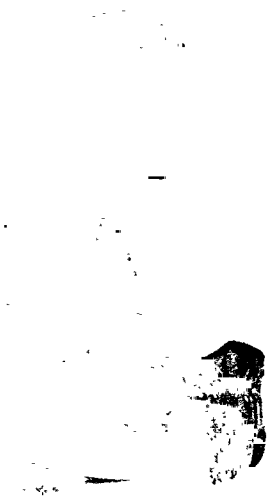
3 4 5

Wooden figures in the British Museum

1 and 2 No. 2320. *Scale c.* $\frac{1}{4}$

3 and 5. No 32,748. *Scale c.* $\frac{1}{3}$.

4. No 37,926 *Scale c* $\frac{1}{4}$.



1



2



3




4

Wooden figures in the British Museum

1 and 2 No. 2331. *Scale c.* $\frac{2}{5}$.

3 and 4. No 2322 *Scale c.* $\frac{1}{3}$

# COSMETICS, PERFUMES AND INCENSE IN ANCIENT EGYPT

By A. LUCAS

Cosmetics are as old as vanity. In Egypt their use can be traced back to almost the earliest period of which burials have been found, and it continues to the present day.

The ancient Egyptian cosmetics included eye-paints, face-paints, and oils and solid fats (ointments), all of which are here considered.

## Eye-Paints.

The two commonest eye-paints were malachite (a green ore of copper) and galena (a dark grey ore of lead), the former being the earlier of the two, but being ultimately largely replaced by the latter, which became the principal eye-paint of the country. Both malachite and galena are found in the graves in several conditions, namely, as fragments of the raw material, as stains on palettes and stones on which this was ground when required for use and in the prepared state (*kohl*), either as a compact mass of the finely ground material made into a paste (now dry) or more frequently as a powder. Malachite is known from the Badarian and earliest predynastic period[1,2,3] until at least the Nineteenth Dynasty[4], while galena does not appear before late predynastic times[3,5] and continues until the Coptic period[4].

The crude form of both malachite and galena was often placed in the graves in small linen or leather bags. The prepared form has been found contained in shells[6], in segments of hollow reeds, wrapped in the leaves of plants and in small vases, sometimes reed-shaped.

When kohl is found as a mass, as distinct from a powder, this has often manifestly shrunk[7,8] and has also sometimes acquired markings from the interior of the receptacle[7], from which it is evident that such preparations were originally in the condition of a paste, which has dried. With what the fine powder was mixed to form the paste has not been determined, though, since fatty matter is absent[7], the use either of water or gum and water seems probable.

The composition of the ancient Egyptian kohl has been described by several writers: for example, by Wiedermann[9] (from analyses by Fischer); by Florence and Loret[10] (who also quote Fischer's analyses and in addition give particulars of a few earlier ones and

[1] G. Brunton, *Qau and Badari*, 1, 63.

[2] G. Brunton and G. Caton-Thompson, *The Badarian Civilisation*, 31, 41, 85–87, 99, 102, 103, 109.

[3] W. M. Flinders Petrie, *Prehistoric Egypt*, 43.

[4] A. Wiedermann, *Varieties of Ancient Kohl*, in *Medum*, W. M. Flinders Petrie, 42, 43.

[5] G. Brunton, *op. cit.*, 13, 31, 63, 70.

[6] Shells were also employed as receptacles for pigment other than eye-paint.

[7] A. Wiedermann, *op. cit.*, 42.

[8] Particularly noticed in the case of dry pastes in shells.

[9] A. Wiedermann, *op. cit.*, 41–44.

[10] A. Florence and B. Loret, *Le collyre noir et le collyre vert*, in *Fouilles à Dachour*, J. de Morgan, 1895, 153–164.

of two of their own); by Barthoux[1] (who examined various specimens thought to be kohl) and by the writer[2] (who has analysed a large number of specimens, the results of a few of which have recently been published)[3].

The results of the analyses referred to, omitting those of Barthoux, which will be dealt with separately, show that the material was galena in 37 cases out of 58[4] (approximately 64 per cent.), while the rest included carbonate of lead[5] (2); black oxide of copper (1); brown ochre (5); magnetic oxide of iron (1); oxide of manganese (6); sulphide of antimony[6] (1); malachite[7] (4), and chrysocolla, a greenish-blue ore of copper (1).

It will be seen that only one of the specimens consisted of an antimony compound and only three others contained any antimony compound and those only a trace, manifestly present as an accidental impurity. The general idea, therefore, that ancient Egyptian kohl always either consisted of or contained antimony or an antimony compound is wrong, and hence it is most misleading to term it *stibium* (an early Latin name for sulphide of antimony, transferred later to the metal), as is sometimes done. The mistake possibly arose from the fact that among the Romans an antimony compound, called by Pliny[8] *stimmi* and *stibi*, was employed in eye-cosmetics and eye-medicines.

Lane states[9] that the ordinary Egyptian kohl of his day consisted of smoke-black (soot) made by burning either a cheap kind of frankincense or the shells of almonds and that the special quality used on account of its supposd medicinal properties contained, besides carbon, a variety of other ingredients, which he enumerates, and which include lead ore, but among which there is no mention of any antimony compound. The present-day Egyptian kohl also consists of soot, made according to Brunton[10] by burning the *qurtum* plant (*Carthamus tinctorius*), and is applied by means of a small wooden, bone, ivory or metal rod, the tip of which is moistened with water and dipped into the powder. Brunton states that these rods only began to appear in the Eleventh Dynasty, and he suggests that before that time the kohl was put on with the finger. Budge found[11] that certain specimens of modern kohl from the Sudan consisted of black oxide of manganese.

Barthoux's account of the composition of ancient Egyptian kohl[12] is very disappointing, as the dates and particulars of origin of the specimens, as well as the number of each kind examined, are omitted. Although the correctness of the analytical results is not questioned, it is doubtful whether several of the specimens were eye-paints and whether others were even cosmetics of any sort. The greater proportion consisted wholly or partly of galena; the rest included carbonate of lead; a compound of antimony and lead (the only one in which any antimony compound occurred); vegetable black (*i.e.* soot obtained by burning vegetable matter); compounds of arsenic (both with and without admixed iron pyrites, some being orange-coloured and probably none of them

[1] J. Barthoux, *Les fards, pommades et couleurs dans l'antiquité, Congrès Int. de Géog., Le Caire, Avril* 1925, IV, 1926, 251–256.

[2] A. Lucas, *Ancient Egyptian Materials*, 59, 104, 146–7. [3] G. Brunton, *op. cit.*, 70.

[4] Two with trace of sulphide of antimony and five with carbon.

[5] One with trace of sulphide of antimony. [6] Nineteenth Dynasty date.

[7] One specimen was mixed with resin, but Florence and Loret (*op. cit.*, 161) contend that this was a medicinal preparation and not kohl.

[8] *Natural History*, trans. J. Bostock and H. T. Riley (Bohn's Library), XXXIII, 33, 34.

[9] E. W. Lane, *The Manners and Customs of the Modern Egyptians* (Everyman's Library), 37.

[10] G. Brunton, *op. cit.*, 63. [11] E. A. Wallis Budge, *The Mummy*, 2nd ed., 1925, 259.

[12] The word employed is "*fards*," which is used apparently to mean eye-paints and not cosmetics generally.

cosmetics) and chrysocolla. Another of the specimens Barthoux suggests may have been composed of bitumen impregnated with aromatic essences. This is described as being chestnut-brown, which is not the colour of bitumen, and apart from the improbability of bitumen having been employed for such a purpose, for which it would be most unsuitable, it is very unlikely that aromatic essences as separate entities, that could be employed for impregnating other substances, were known to the ancient Egyptians, since to obtain them a knowledge of distillation would be necessary, and the evidence at present available makes it probable that this process was not discovered until a very late date[1]. A further specimen was rose-coloured and consisted of a mixture of common salt, sodium sulphate, haematite and organic matter, but the composition makes it doubtful whether it was a cosmetic of any sort, and it was almost certainly not an eye-paint. Wax and fatty matter occurred in several instances, but these specimens, although they may have been ordinary cosmetics, were probably not eye-paints, since all the specimens of kohl analysed by Fischer[2], Florence and Loret[3], and the writer, have been free from these substances. In a few cases, too, resin (sometimes aromatic) was present, but these also are unlikely to have been eye-paints, since all the specimens of kohl analysed by others have been free from resin. In one case it is true that a powder examined by von Baeyer consisted of malachite and resin, but Florence and Loret consider this to have been a medicament and not an eye-paint on account of the inscription on the receptacle[4]. Although resin is frequently found in graves, particularly in those of early date, close to or associated with the eye-paint materials malachite and galena, there is no evidence to show for what purpose it was used[5], and, as already mentioned. all the prepared eye-paints analysed have been free from resin, except the few specimens reported by Barthoux, and that these were indeed eye-paint needs confirmation.

The materials of the early eye-paints, malachite and galena, are both products of Egypt, malachite being found in Sinai and in the eastern desert and galena near Aswan and on the Red Sea coast. The additional materials occasionally employed later, namely carbonate of lead, oxide of copper, ochre, magnetic oxide of iron, oxide of manganese and chrysocolla are also all local products, the only exceptions being compounds of antimony, which, so far as is known, do not occur in Egypt, but which are found in Asia Minor, Persia and possibly also in Arabia[6].

According to the ancient records eye-paint was obtained in the Twelfth Dynasty from the Asiatics[7] and in the Nineteenth Dynasty from Koptos[8], while eye-cosmetics (whether the same material is meant is not clear) were received in the Eighteenth Dynasty from Naharin in western Asia[9] and from Punt[10,11]. Although there was no necessity for the Egyptians to import eye-paint from abroad, since all the materials employed, except the rarely used antimony compounds, occur naturally in the country, there would not have been any difficulty in obtaining it from Asia, where the various materials also occur. The eye-paint from Koptos that so puzzled Max Müller may well have been galena from the Red Sea coast, but what eye-cosmetic could have been brought

[1] P. 45. [2] A. Wiedermann, *op. cit.*, 41–44. [3] Florence and Loret, *op. cit.*, 153–164.
[4] Florence and Loret, *op. cit.*, 161. [5] Pp. 48, 52, 53.
[6] R. F. Burton, (*a*) *The Gold Mines of Midian*, 1878, 168, 375, 390; (*b*) *The Land of Midian*, 1879, I, XXII, 194.
[7] J. H. Breasted, *Ancient Records of Egypt*, I, 620, n.d.
[8] W. Max Müller, *Egyptological Researches*, II, 1910, 88–89.
[9] J. H. Breasted, *op. cit.*, II, 501. [10] J. H. Breasted, *op. cit.*, II, 265, 272.
[11] A. Erman, *The Literature of the Ancient Egyptians*, trans. A. M. Blackman, 247.

from Punt is a question not easily answered. Punt is chiefly associated with odoriferous gum-resins used as incense (which in the list of articles obtained are enumerated separately), but these are not cosmetics, though they were sometimes employed to impart a fragrance to cosmetics (ointments). It is certainly possible, however, although it seems unlikely, that some mineral substance, not native to Punt (since none likely to have been sent to Egypt is known to occur there) may have reached Egypt by way of Punt, in the same manner as, in Roman times, produce from India was carried to ports on the African coast and thence transhipped to Italy. If this be so, the eye-cosmetic referred to may have been malachite or galena, which were the principal eye-paints of ancient Egypt and both of which occur in Arabia[1,2].

### Face-Paints.

In addition to painting round the eyes, the ancient Egyptian women probably sometimes also coloured their cheeks, since this is the most reasonable explanation of certain red pigment found in the graves associated with palettes[3] and as stains on palettes[4,5,6,7] and stones[8] on which it was ground for use. This pigment is a naturally occurring red oxide of iron, generally termed haematite, but which would be more correctly described as red ochre[9].

### Oils, Fats and Perfumes.

An important class of ancient Egyptian cosmetics consisted of oils and fats (ointments), and their use is frequently mentioned in the ancient records[10,11] and by several of the Greek and Roman writers[12]. That in a hot, dry climate, such as that of Egypt, oils and fats should have been applied to the skin and hair was only natural, and the practice still persists in Nubia, the Sudan and other parts of Africa. The oil was probably of more than one kind, that used by the poorer classes, according to Strabo[13], being castor oil, which grows wild in the country and is still used for the same purpose in Nubia at the present day. Of solid fats the choice was small, being limited to animal fats.

From purely theoretical considerations alone it is exceedingly probable that fragrant substances were sometimes added to these oils and fats, not only to render them more pleasing, but also to mask the tendency of such materials to become rancid and disagreeable. Fortunately, however, it is not necessary to rely on conjecture as there is definite evidence that such indeed was the case, as may now be shown.

[1] R. F. Burton, *op. cit.*, (*a*) 141, 204, 219, 228, 390 ; (*b*) I, XI, XXI, XXIII, 55, 66, 75, 76, 267, 269 ; II, 53.
[2] R. F. Burton, *op. cit.*, (*a*) 11, 204, 390 ; (*b*) I, XXII. 266, 269 ; II, 191, 242.
[3] C. M. Firth, *Arch. Survey of Nubia, Report for 1910–1911*, 157.
[4] W. M. Flinders Petrie, *op. cit.*, 37.
[5] W. M. Flinders Petrie and E. Mackay, *Heliopolis, Kafr Ammar and Shurafa*, 18.
[6] G. Brunton and G. Caton-Thompson, *op. cit.*, 31.
[7] J. E. Quibell, *Archaic Objects, Cat. Gén. du Musée du Caire*, I, 226, 227.
[8] G. Brunton, *op. cit.*, 62.
[9] Red ochre, which was the only red pigment known in ancient Egypt until very late, was also much employed for painting tombs and other objects, as also by the scribes in writing, and it is found in graves, apart altogether from palettes and from any suggestion of its use in personal adornment.
[10] J. H. Breasted, *op. cit.*, V (Index), 123, 149.
[11] A. Erman, *op. cit.*, 8, 61, 99, 102, 156, 202, 207, 209, 244, 246, 249.
[12] P. 45.
[13] *Geography*, trans. H. C. Hamilton and W. Falconer (Bohn's Library), XVII, 2, 5.

The modern liquid scents and perfumes are solutions in alcohol of various odoriferous principles derived from the flowers, fruits, wood, bark, leaves or seeds of plants, but more generally from flowers. Such perfumes cannot have been known in ancient Egypt at any very early date, since to produce most of them, as well as to produce the alcohol to dissolve them, a knowledge of the process of distillation is essential, and this was almost certainly not discovered until a late period, the earliest reference to it that can be traced being one by Aristotle[1] in the fourth century B.C. Pliny also mentions distillation[2], and from the methods he describes it seems clear that even in his time (first century A.D.) the process was in a primitive and, therefore, presumably early stage.

After alcohol, the next best medium for absorbing and retaining odours is fat or oil, a fact that is largely made use of at the present day to abstract the scent from flowers, the petals of which are placed in layers of solid fat or soaked in oil, the perfume being afterwards removed by means of alcohol. This method, at least in its entirety, must have been unknown until the process of separating alcohol by distillation from fluids containing it was discovered, though a partial application of it would have been possible without alcohol, since when the fat or oil was thoroughly impregnated with the perfume, if the exhausted petals had been picked out or otherwise removed, a scented fat or oil would have remained. A method of this kind was practised by the Greeks in the time of Theophrastus[3] (fourth to third century B.C.), the oil most used being that from the Egyptian or Syrian *balanos*[4] (*Balanites aegyptiaca*), though olive oil and almond oil were also employed. A similar method was also in use by the Romans of Pliny's day[5] (first century A.D.), various plants being left to steep in oil and then pressed, or sometimes boiled in oil. That a corresponding process was also employed in Egypt seems indicated by Pliny's enumeration of various oils among the constituents of Egyptian unguents[6].

Egyptian unguents are described by both Theophrastus and Pliny. The former states that one was made from several ingredients, including cinnamon and myrrh[7] (the other ingredients not being named), and a second from quince[8]. Pliny says that Egypt was the country best suited of all for the production of unguents[9], and that at one time those most esteemed in the Roman world were from Mendes[6], and he describes the Mendesian unguent as being of a very complex composition, consisting originally of oil of ben (*balanus*), resin and myrrh, but at a later period containing oil of bitter almonds (*metopium*), olive oil (*omphacium*), cardamoms, sweet rush, honey, wine, myrrh, seed of *balsamum*, galbanum and turpentine resin[6]. This same writer also states that the ben nut (*myrobalanum*), which grew in the country of the Troglodytae, in the Thebaid and in Ethiopia, yielded an oil particularly suitable for unguents[10]: also that Egyptian *elate*[11] or *spathe*[11] and the fruit of a palm called *adipsos*[12] were all used in making unguents; he also mentions another Egyptian unguent made from *cyprinum*[6] which he states was an Egyptian tree[13] and which was probably henna, the leaves of which are odoriferous.

In connexion with henna it may be mentioned that the leaves were possibly used in ancient Egypt, much as they are to-day, in the form of a paste to colour the palms of the hands, the soles of the feet, the nails and the hair. Thus, the Romans certainly employed henna, an Egyptian shrub, for colouring the hair[14], and probably therefore the

[1] *Meteorologica*, II, 2.
[2] *Op. cit.*, XV, 7; XVI, 21.
[3] *Enquiry into Plants*, trans. A. Hort (Loeb Library), *Concerning Odours*, II, 341.
[4] *Op. cit.*, 341, 345.
[5] *Op. cit.*, XIII, 2; XV, 7.
[6] *Op. cit.*, XIII, 2.
[7] *Op. cit.*, 353, 355.
[8] *Op. cit.*, 355.
[9] *Op. cit.*, XIII, 6.
[10] *Op. cit.*, XII, 46; XV, 7.
[11] *Op. cit.*, XII, 62.
[12] *Op. cit.*, XII, 47.
[13] *Op. cit.*, XII, 51.
[14] *Op. cit.*, XXIII, 46.

Egyptians also, and Elliot Smith describes the hair of the mummy of Honttimihou (Eighteenth Dynasty) as being dyed a brilliant reddish colour, which he suggests was done with henna[1]. Naville states that the finger nails of an Eleventh Dynasty mummy he examined were tinted with henna[2], and Maspero thought that the hands of Ramesses II were stained "jaune-clair par les parfums"[3]. Elliot Smith, however, suggests that the latter were merely discoloured by the embalming material, which may be the case also with the mummy to which Naville refers, as it almost certainly is with the staining of the finger nails of the mummy of Yuaa in the Cairo Museum. Newberry has identified twigs of henna from the Ptolemaic cemetery of Hawara[4].

Besides the perfumes from plants already dealt with and in the absence of animal perfumes (the principal being ambergris, civet and musk), for the use of which in ancient Egypt there is no evidence, the only other likely odoriferous substances that remain for consideration are the plant products, resins and gum-resins, for the use of which to perfume oils and fats there is a certain amount of positive evidence, that may now be considered.

The statement of Theophrastus that a certain Egyptian unguent contained myrrh has already been quoted, as also that of Pliny that resin, turpentine resin, myrrh and galbanum entered into the composition of the Mendesian unguent, and to these may be added some slight evidence from the Egyptian records and from the tombs. Although as a rule, there is little to suggest that any of the oils, fats and ointments, so frequently mentioned in the records, were scented (there being usually either no description of the material or merely a statement of the purpose for which it was employed), there are several exceptions, namely one instance in which the "smell of unguents" is referred to[5], two others in which "sweet oil of gums"[6] and two in which "ointment of gums"[7] respectively are named and, since gums are not odoriferous, but since resins and gum-resins are even to-day often wrongly termed gums, the names suggest a possibility that the oil and ointment referred to may have been perfumed by means of fragrant resins or gum-resins.

From the tombs the evidence leaves much to be desired, but definite facts are gradually being accumulated. Fatty matter has often been found in graves, and this frequently possesses a strong smell[8,9,10], but probably in no instance is the smell the original one, nor can it reasonably be called a perfume; in all the cases known to the writer it has always been a secondary smell due to chemical changes that have taken place in the fat, and it is often suggestive of rancid coconut oil[11] and in one instance of valeric acid[11]. Very few examples of this fatty matter have been analysed, and there is no definite proof that any of the specimens were cosmetics, though in one instance this is very probable. Sometimes the fatty matter consists largely of mixed palmitic and

[1] G. Elliot Smith, *The Royal Mummies, Cat. Gén. du Musée du Caire*, 19.

[2] E. Naville, *The Eleventh Dynasty Temple at Deir-el-Bahari*, I, 1907, 44.

[3] G. Elliot Smith, *op. cit.*, 60-1.

[4] P. E. Newberry, *On the Vegetable Remains discovered in the Cemetery of Hawara*, in *Hawara, Biahmu and Arsinoe*, W. M. Flinders Petrie, 50.

[5] A. Erman, *op. cit.*, 156. [6] J. H. Breasted, *op. cit.*, IV, 497, 498.

[7] J. H. Breasted, *op. cit.*, IV, 476, 477.

[8] W. M. Flinders Petrie, *The Royal Tombs of the First Dynasty*, I, 14.

[9] G. A. Wainwright, *Balabish*, 14.

[10] W. M. Flinders Petrie and J. E. Quibell, *Naqada and Ballas*, 27, 39, 40.

[11] A. Lucas, in *The Tomb of Tut-ankh-Amen*, Howard Carter, II, Appendix, II, 176, 177.

stearic acids[1,2,3], probably representing an original animal fat, while in other cases it consists chiefly of stearic acid[1,4], which suggests that it was at one time castor oil. Four specimens examined have been mixed with solid material that has not been identified[1,5], but which in one instance was possibly a balsam[3]. According to Pliny[6], however, the Roman perfumers of his day (and possibly, therefore, the Egyptian perfumers also) thought that gum or resin added to a cosmetic fixed the perfume, and it seems possible that the solid matter referred to may have been not a fragrant resin or gum-resin added to perfume the fat, but a non-odoriferous gum or resin used to fix a perfume obtained from some other source. Five specimens of material, all very much alike, from different compartments of a toilet box of unknown date examined by Gowland gave results from which he concluded that the material consisted of beeswax mixed with an aromatic resin and a small proportion of vegetable oil[7].

Eight specimens of materials of unknown date, thought to be perfumes, examined by Reutter, are stated to have consisted generally of a mixture of all or most of the following-named substances, storax, incense, myrrh, turpentine resins, bitumen of Judea perfumed with henna, aromatic vegetable material mixed with palm wine or the extract of certain fruits (such as cassia or tamarind) and grape wine[8]. These analyses were made on very small quantities of materials (from 0·498 gram to 2·695 grams), and the conclusions are much too definite for the chemical results obtained. Thus, that a very minute residue of black material, suggestive of bitumen and containing sulphur, was obtained from each specimen is not questioned, but the evidence is not sufficient to prove that this was bitumen of Judea. Such a residue is not infrequent in the case of organic substances of the nature of those examined, especially when they are several thousands of years old. That bitumen was added to perfumes and in such very small proportions as the black residue represented is not only not warranted by the evidence, but is most improbable. The correctness, too, of the identification of so many different substances in the one mixture, particularly when dealing with such small quantities as were examined, needs confirmation.

## Incense.

Since the word incense (Latin *incendere*, to burn or kindle) has the same literal meaning as the word perfume, which is the aroma given off with the smoke (*per fumum*) of any odoriferous substance when burned, incense, therefore, should be included in any description of ancient Egyptian perfumes.

[1] A. Lucas, in *The Tomb of Tut-ankh-Amen*, Howard Carter, II, Appendix, II, 176, 177.

[2] W. M. Flinders Petrie and J. E. Quibell, *Naqada and Ballas*, 39.

[3] A. C. Chapman and H. J. Plenderleith, *Examination of an Ancient Egyptian (Tut-ankh-Amen) Cosmetic*, in (*a*) *Journ. Chem. Soc.*, CXXIX (1926), 2614–2619; in (*b*) *The Tomb of Tut-ankh-Amen*, Howard Carter, II, Appendix, IV, 206–210.

[4] J. E. Quibell, *The Tomb of Yuaa and Thuiu*, 75–77. Analysis by the writer.

[5] These included the specimen examined by Chapman and Plenderleith and previously by the writer together with three apparently somewhat similar specimens examined by the writer.

[6] *Op. cit.*, XIII, 2.

[7] W. Gowland, *Proc. Bibl. Arch.*, XX (1898), 268–269.

[8] L. Reutter, *Analyses des parfums égyptiens* in *Annales du Service des Antiq. de l'égypte*, XIII (1914), 49–78.

That incense was employed in ancient Egypt there can be no doubt. Both incense[1,2] and incense burners (censers)[3] are mentioned in the ancient records and the offering of incense is shown in the illustrations to the Book of the Dead[4,5] and is very frequently pictured in temples and tombs and incense[6,7,8] and incense burners[9,10,11,12] have been found in graves.

At what date incense was first used in Egypt is uncertain, but the earliest references that can be traced are of the Fifth[13] and Sixth[14] Dynasties respectively, and an incense burner of the Eighth Dynasty[9] has recently been discovered. The earliest certain incense of which the writer has any knowledge is from the end of the Eighteenth Dynasty, which was in the shape of small balls similar to those so frequently depicted on monuments[7]. Incense of the Ptolemaic period from the graves of the priests of Philae found by Reisner was also partly in the form of balls and partly as discs[8]. It is recorded, too, that incense was among the foundation deposits of the tomb of Aahmes I[6], but that this was prepared incense, such as that just mentioned, needs confirmation. It is described as being in "pieces" and is much more likely to have been the dark brown resin, lumps of which so frequently occur in graves, particularly, but not exclusively, in those of early date. The purpose for which this resin was employed has never been determined, and it is possible that it may have been for use as incense. As a rule, the smell produced when this resin is burned is not fragrant according to modern ideas, being very like that of burning varnish, but occasionally specimens are found that are aromatic. If incense, this resin was the forerunner of the more sweet-smelling and probably much more rare and expensive frankincense and myrrh and, if not incense, then the almost entire absence in graves of one of the most commonly employed materials in the religion and magic of ancient Egypt remains unexplained[15]. Possibly, too, even after frankincense and myrrh became known in Egypt their use was restricted to special occasions on account of their rarity and price, a more easily obtained and cheaper material being employed for ordinary purposes and by the poorer people, which would explain the occurrence of this brown resin in the graves of all periods and of all ranks.

The two best known and most important modern incense materials are frankincense and myrrh, which may now be described.

### Frankincense or Olibanum.

This has been regarded from a very early period, and is still regarded, as true or genuine incense. It is a fragrant gum-resin occurring in the form of large tears, generally

[1] J. H. Breasted, *op. cit.*, V (Index), 134.
[2] A. Erman, *op. cit.*, 28, 33, 34, 40, 91, 102, 103, 105, 133, 209, 235, 239, 247, 287, 293.
[3] J. H. Breasted, *op. cit.*, V (Index), 113.
[4] E. A. Wallis Budge, *The Papyri of Hunefer, etc.*, 1899, Pls. 6, 7.
[5] British Museum, *The Papyrus of Ani*, 1890, Pl. V.
[6] E. R. Ayrton, C. T. Currelly and A. E. P. Weigall, *Abydos*, III, 1904, 34.
[7] A. Lucas, in *The Tomb of Tut-ankh-Amen*, Howard Carter, II, Appendix, II, 184.
[8] G. A. Reisner, *Arch. Survey of Nubia, Report for 1907–1908*, I, 85.
[9] G. Brunton, *a*) *op. cit.*, 35; *b*) *Qau and Badari*, II, 6; Pl. lxxxviii, 98 d.
[10] G. A. Reisner, *op. cit.*, 78, 82, 83, 85, 86, 87, 89, 90, 91, 92.
[11] C. M. Firth, *op. cit.*, *Report for 1909–1910*, 112; *Report for 1910–1911*, 52, 53, 57, 59, 60, 61, 65, 66, 73, 78, 199.
[12] W. M. Flinders Petrie, *Denderah*, 34.
[13] J. H. Breasted, *op. cit.*, I, 161.
[14] J. H. Breasted, *op. cit.*, I, 336, 369.
[15] This resin will be described further after the ordinary incense materials have been dealt with.

of a light yellowish-brown colour, though the purer varieties are almost colourless. It is translucent when fresh, but after transport (which is necessarily the condition in which it comes into commerce) it becomes covered with its own fine dust, produced by friction between the pieces, and the outside is then semi-opaque. Most other incense materials are more definitely coloured, many of them being dark yellow, dark yellowish-brown or, in a few cases, grey or black. The white incense, therefore, mentioned in the Papyrus Harris[1] (Twentieth Dynasty) suggests frankincense, since this is more nearly white than any other incense material. Pliny states that whiteness was one of the features whereby a good quality of frankincense (Latin, *Thus*) might be recognized[2], and its name in Hebrew, Greek and Arabic signifies milk-white.

Frankincense is yielded by certain trees of the genus *Boswellia*, growing principally in Somaliland and southern Arabia. A variety of frankincense, however, is obtained from *Commiphora pedunculata*, which grows in the eastern Sudan near Gallabat[3] and also in the adjoining parts of Abyssinia. The statements in the ancient records, therefore, that incense reached Egypt from Negro tribes in the Sixth Dynasty[4] and from Punt in the Eighteenth[5] and Twentieth[6] Dynasties in no way conflict with it having been frankincense, since Punt (whether Somaliland or southern Arabia) is the home of frankincense, while the Negro tribes dwelt to the south of Egypt, and a product of Punt or of the eastern Sudan might easily have passed through their country on its way to Egypt. Even the incense obtained from Retenu[7], Zahi[8] and Naharin[9] in the Eighteenth Dynasty may have been, at least in part, frankincense, since there would not have been any great difficulty in a product of southern Arabia reaching western Asia, though, on the other hand, this source suggests some other kind of incense material.

Pliny states in one place[10] that the frankincense tree (*Thus*) grew in Carmania and Egypt, into which latter country it was introduced by the Ptolemies, but in another place[11] he says that it was ladanum (*Ladanum*) that was found originally in Carmania, and that was planted by order of the Ptolemies "in the parts beyond Egypt."

The trees brought by Hatshepsut's expedition from Punt, which are depicted on the walls of the queen's mortuary temple at Dêr el-Baḥrî, are termed myrrh by Breasted[12] and frankincense by Naville[13] and are stated by Schoff[14] to be *Boswellia Carteri*, the frankincense tree of Dhofar in southern Arabia. Representations of about 30 trees, or parts of trees, still exist on the walls of the temple, two forms being shown, one having luxuriant foliage and the other quite bare, but whether they are the same tree depicted differently or at different seasons of the year, or whether they are two entirely different trees there is nothing to indicate. In any case, however, they are drawn in so conventional a manner that there cannot be any certainty about their identity. Schoff takes note only of the trees with foliage (which are those usually copied) ignoring altogether those

[1] J. H. Breasted, *op. cit.*, IV, 233, 239, 299, 344, 376.

[2] *Op. cit.*, XII, 32.

[3] Through the courtesy of the District Commissioner, Gallabat, the writer has been able to obtain some of this incense for examination. There are also specimens in the Imperial Institute Museum, London.

[4] J. H. Breasted, *op. cit.*, I, 336, 369.

[5] J. H. Breasted, *op. cit.*, II, 265.

[6] J. H. Breasted, *op. cit.*, IV, 130.

[7] J. H. Breasted, *op. cit.*, II, 447, 472, 473, 491, 518, 525, 616

[8] J. H. Breasted, *op. cit.*, II, 462, 509, 510, 519.

[9] J. H. Breasted, *op. cit.*, II, 482.

[10] *Op. cit.*, XII, 31.

[11] *Op. cit.*, XII, 37.

[12] J. H. Breasted, *op. cit.*, II, 264, 265, 272, 288.

[13] E. Naville, *The Temple of Deir el-Bahari*, III, 12.

[14] H. Schoff, notes to *The Periplus of the Erythraean Sea*, 1912, 218.

without foliage, and he says that the rich foliage cannot be meant to represent "the bare, thorny, trifoliate, but almost leafless myrrh tree, nor the almost equally leafless varieties of Somaliland frankincense." It seems possible, however, that the trees without foliage may be intended for these very things.

Among the imports into Egypt in the Roman period on which duty was levied was frankincense[1] (both African and Arabian), and Pliny states[2] that this material was prepared for sale (presumably by cleaning and sorting) at Alexandria.

Lane says[3] that the Egyptian women of his day chewed frankincense in order to perfume their breath.

The incense from the tomb of Tut-ankh-Amen, already mentioned, which has been examined by the writer, is possibly frankincense.

### Myrrh.

Myrrh, like frankincense, is a fragrant gum-resin and is obtained from the same countries as frankincense, namely, Somaliland and southern Arabia. It is derived from various species of *Balsamodendron* and *Commiphora*, and occurs in the form of yellowish-red masses of agglutinated tears, often covered with its own fine dust; it is never white or green and so cannot be either the white[4] or green[5] incense referred to in the ancient records. In Breasted's translation of these records it is stated that myrrh was obtained from Punt (Fifth[6], Eleventh[7], Eighteenth[8], Twentieth[9] and Twenty-fifth[10] Dynasties) and from Genebteyew[11] (Eighteenth Dynasty), which is in agreement with its known origin. Even the receipt of myrrh from Retenu[12] in western Asia (Eighteenth Dynasty) is not impossible, since it might readily have reached Retenu from Arabia.

Theophrastus and Pliny have already been quoted[13] for the statements that myrrh entered into the composition of certain Egyptian unguents, and Plutarch mentions the use of myrrh as incense in Egypt[14].

Myrrh has been identified by Reutter in ancient Egyptian perfumes[15] (undated), and specimens of gum-resin from certain royal and priestly mummies of the Eighteenth, Nineteenth, Twentieth and Twenty-first Dynasties respectively examined by the writer were probably myrrh[16].

### Incense other than Frankincense and Myrrh.

Satisfactory incense materials other than frankincense and myrrh are very few and must have been still fewer in ancient Egypt, since such substances as benzoin and camphor from the Far East and, in the earlier periods, the products of India were probably not then available. Speculation, however, as to what might have been employed is of little value and may be misleading, and only those materials will be mentioned for the use of which in Egypt there is some evidence, and these are limited to galbanum, ladanum, and storax, which may now be described.

[1] H. Schoff, *op. cit.*, 289.
[2] *Op. cit.*, XII, 32.
[3] E. W. Lane, *op. cit.*, 194.
[4] J. H. Breasted, *op. cit.*, IV, 233, 239, 299, 344, 376
[5] J. H. Breasted, *op. cit.*, II, 572.
[6] J. H. Breasted, *op. cit.*, I, 161.
[7] J. H. Breasted, *op. cit.*, I, 429.
[8] J. H. Breasted, *op. cit.*, II, 265, 274, 276, 277, 321, 486.
[9] J. H. Breasted, *op. cit.*, IV, 130, 210, 407.
[10] J. H. Breasted, *op. cit.*, IV, 929.
[11] J. H. Breasted, *op. cit.*, II, 474.
[12] J. H. Breasted, *op. cit.*, II, 491.
[13] P. 45.
[14] *Isis and Osiris*, French trans., M. Meunier, 1924, 164.
[15] L. Reutter, *Analyses des parfums égyptiens*, in *Annales du Service*, XIII (1914), 49–78.
[16] A. Lucas, *Preservative Materials used by the Ancient Egyptians in Embalming*, Cairo, 1911, 26–29.

### Galbanum.

This is a fragrant gum-resin generally occurring in masses of agglomerated tears and is of a light brownish-yellow to a dark brown colour, with often a greenish tint; it has a greasy appearance and, though usually hard, it may occasionally be of semi-solid consistency; it is a native of Persia and a product of various species of the umbelliferous plant *Peucedanum*, of which *P. galbaniflorum* is the most important. This is the only incense material that is at all green known to the writer, though it is stated[1] that frankincense may occasionally have a greenish tint. As there would not have been any difficulty in galbanum reaching Egypt from Persia in the Eighteenth Dynasty, this may well have been the green incense mentioned in the ancient records[2]. According to Pliny[3], galbanum was one of the constituents of the Mendesian unguent, and it is mentioned in the Bible as entering into the composition of Jewish incense[4]. There is no record of galbanum having been found in ancient Egyptian graves.

### Ladanum.

This, unlike the other incense materials described, is a true resin and not a gum-resin; it occurs in dark brown or black masses, which are often viscid or easily softened by handling, and is obtained from various species of *Cistus* that grow in Asia Minor, Crete, Cyprus, Greece, Palestine, Spain and other parts of the Mediterranean region, though not at the present time in Egypt. Pliny, however, states[5] that the Ptolemies introduced the *Cistus* into "the parts beyond Egypt," from which it follows, if the statement is true, and if Egypt be meant, first, that the *Cistus* has been grown in the country and second, either that it was not grown previous to the time of the Ptolemies or, that, if once grown, it had disappeared.

Newberry has recently suggested[6] that the ancient Egyptians were acquainted with ladanum as early as the First Dynasty. From purely theoretical considerations this is only what might be expected, since, even if ladanum was not an Egyptian product, it was abundant in countries bordering the Mediterranean with which Egypt had intercourse and from which it might easily have been obtained. No positive evidence, however, can be found for this early use. The earliest literary references known to the writer for the use of ladanum in Egypt are in the Bible, where it is stated that certain merchants carried ladanum into Egypt from Gilead[7] and that Jacob sent ladanum to Egypt as a present to his son Joseph[8]. The date of this record is probably not earlier than the tenth century B.C. and possibly as late as the eighth century B.C. Incidentally it may be noted that the sending of ladanum from Palestine to Egypt suggests that ladanum was not at that time a product of Egypt. The next literary reference in date order that can be traced is the one already quoted from Pliny in the first century A.D. In modern times Lane states that it was customary for the Egyptian women of his day to chew ladanum to perfume their breath[9].

So far as is known, the only instance of ladanum having been found in connexion with ancient Egypt is a specimen of Coptic incense of the seventh century from Faras

[1] F. H. Butler, in *Ency. Brit.*, 11th ed., 1910, Art. *Frankincense*. The present writer, who has examined a large number of specimens of frankincense from different sources, has never seen any with even the slightest tinge of green colour.

[2] J. H. Breasted, *op. cit.*, II, 572.

[3] *Op. cit.*, XIII, 2.

[4] *Exodus*, XXX, 34 (Revised Version).

[5] *Op. cit.*, XII, 37.

[6] *Journal*, XV (1929), 94.

[7] *Genesis*, XXXVII, 25 (Revised Version).

[8] *Genesis*, XLIII, 11 (Revised Version).

[9] E. W. Lane, *op. cit.*, 194.



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near Wâdî Halfa, which was examined by the writer and the results published some years ago[1]. This was a fragrant, black resin containing 31 per cent. of mineral matter and is believed to be ladanum.

### Storax.

Storax (Styrax) is a balsam obtained from the tree *Liquidamber orientalis*, belonging to the natural order *Hamamelideæ*, indigenous to Asia Minor. It is a turbid, viscid greyish liquid having an odour like benzoin and belongs to the same class of bodies, the distinguishing feature of which is that they contain either cinnamic or benzoic acid, storax containing the former. At one time the name storax was applied to the solid resin obtained from *Styrax officinalis*, which somewhat resembles benzoin. Reutter has identified storax in Egyptian mummy material[2] and in ancient Egyptian perfumes[3], both unfortunately undated.

### Miscellaneous Incense Materials.

Specimens of various miscellaneous materials of ancient Egyptian origin submitted as incense have been examined by the writer from time to time and may now be described. One of these was Coptic incense of the same date and from the same place as that already described when dealing with ladanum. This second specimen, however, was very different; it was in irregular-shaped pieces of a dark reddish-brown colour, translucent when freshly fractured, very resinous-looking and possessed a fragrant smell. On analysis it proved to be a true resin, as distinguished from a gum-resin, and therefore could not be frankincense, myrrh, galbanum or storax, and its colour was not that of ladanum; it was not identified[1]. A specimen of material found by Legrain at Karnak was dull and opaque in appearance, and on analysis proved to be a true resin mixed with 76 per cent. of limestone dust. Although described by the finder as incense, it is suggested that it was a cementing material similar to that discovered at Karnak a few years later by Pillet and examined by the writer[4].

That frankincense occurs in the Sudan has already been stated, but in addition there are also other materials that might be employed as incense, though whether they have been so used and to what extent they occur is unknown. The writer has examined two of these, one *Gafal* resin stated to be obtained from *Balsamodendron africanum* and the other the product of *Gardenia Thunbergia*. The *Gafal* resin was in the shape of irregular-shaped masses, yellowish, light brown or dark brown in colour and generally translucent and very resinous-looking. The *Gardenia Thunbergia* product was also in irregular lumps, but very different in appearance from the *Gafal* resin; it varied in colour from a light yellowish-brown to black and was entirely opaque. Both materials are fragrant gum-resins and seem very suitable for incense purposes.

### Resin of Unknown Significance from Egyptian Graves.

Resin is one of the commonest materials in ancient Egyptian graves of all periods, and particularly in those of predynastic and early dynastic date, but the use of this resin has never been explained. It is now suggested that it may have been for incense

[1] A. Lucas, *Preservative Materials used by the Ancient Egyptians in Embalming*, Cairo, 1911, 31–32.
[2] L. Reutter, *De l'embaumement avant et après Jésus-Christ*, Paris, 1912, 49, 59.
[3] L. Reutter, *Analyses des parfums égyptiens*, in *Annales du Service*, XIII (1914), 49–78.
[4] M. Pillet, *Annales du Service*, XXIV (1924), 64–65.

purposes. That resin was employed in mummification, as varnish, as a cementing material and for beads and other personal ornaments is well known, but the particular resin now referred to is a marked feature in burials long before mummification was practised and almost certainly, too, before resin was used for the other purposes mentioned. It is of several kinds, generally of a dull brown colour on the outside, but brighter and more resinous-looking in the interior; very friable and with a characteristic faceted appearance when fractured, though occasionally reddish-brown or reddish-yellow and translucent and then very like colophony in appearance. A considerable amount of chemical work has already been done by the writer on these materials[1] and this is being continued, but as yet their botanical source has not been identified. Some of the specimens, however, are true resins and not gum-resins, which suggests coniferous trees from Asia as their origin.

### Conclusions.

The various facts enumerated make it highly probable that ancient Egyptian incense consisted, in part at least, of frankincense and myrrh obtained from Somaliland and southern Arabia, as generally accepted, but that other materials, including galbanum and storax from Asia and ladanum from Palestine or southern Europe were also employed, though possibly not until a comparatively late period. It is suggested, too, that the brown resin so common in Egyptian graves of all periods, but particularly in those of predynastic and early dynastic date, may have been the original incense material employed in Egypt, which continued in use as a cheap substitute for frankincense and myrrh, especially for burial purposes, even after more fragrant materials were known. It is further suggested that this early resin was procured from Asia.

[1] A. Lucas, *Preservative Materials used by the Ancient Egyptians in Embalming*, 20–49.

# THE TOMB OF AAḤMOSE, SUPERVISOR OF THE MYSTERIES IN THE HOUSE OF THE MORNING

By ALAN W. SHORTER

With Plates xv—xvii

This tomb is situated in that part of the Theban necropolis known as El-Khôkhah, on the east side, just above the tomb of Surerēʿ, and bears the number 241 in Gardiner-Weigall, *Topographical Catalogue of the Private Tombs of Thebes*, 38–39, VII B, 2; VIII B, 2. The following account is based upon material very kindly lent to me by Dr. Alan Gardiner, consisting of full notes and hand-copies of inscriptions made by him when in Egypt, and of the drawings of scenes by Mrs. N. de G. Davies here reproduced. I have also had the opportunity of discussing this paper with Dr. Gardiner, and the benefit of his suggestions.

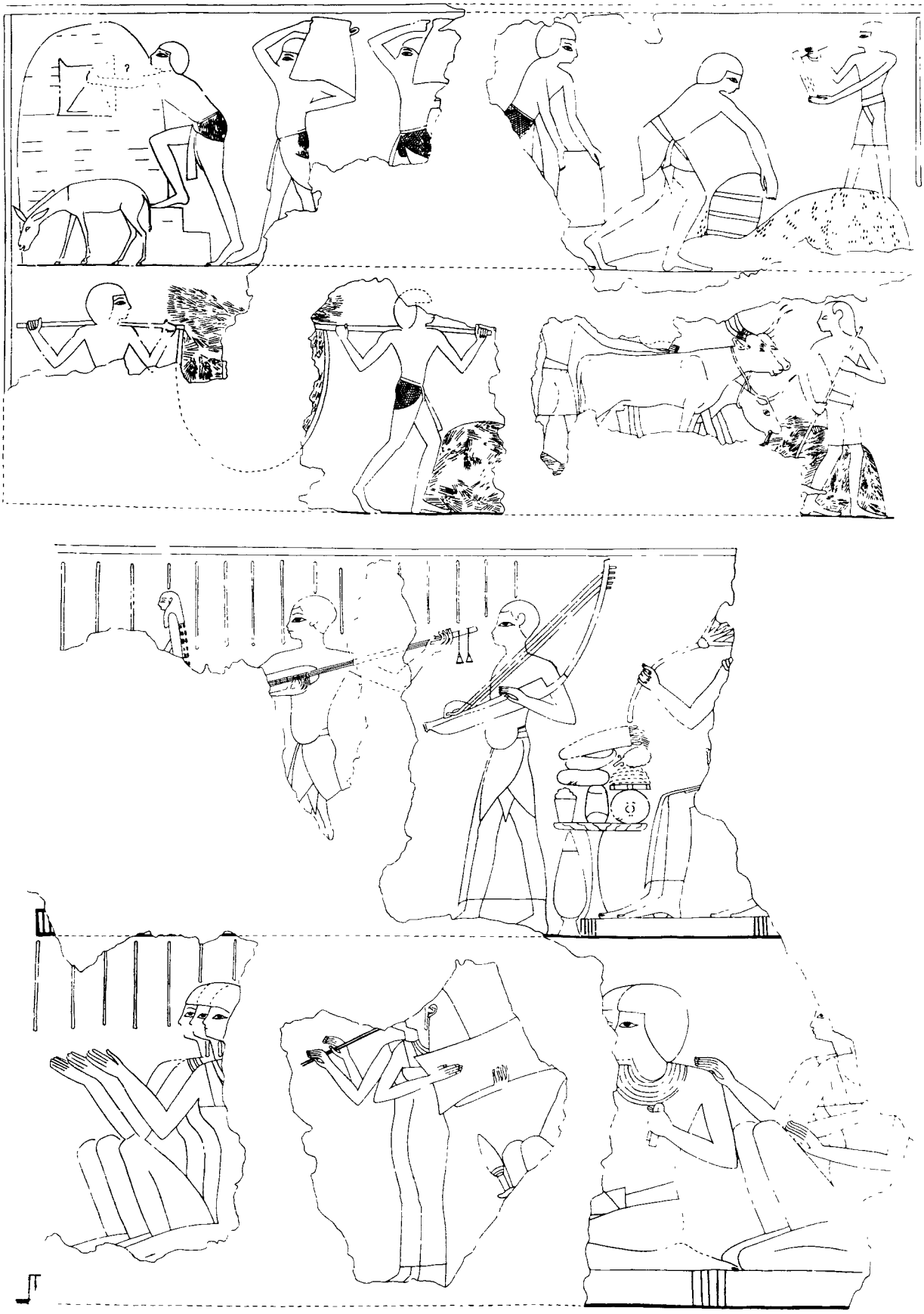
The tomb consists of a transverse chamber running roughly east and west, and an inner chamber now completely blocked up with mud. The scenes are painted upon a bluish background in the west bay, and on what was apparently a white background in the east bay, and contain no elaborate coloured hieroglyphs at all, but the work is good and widely spaced out as in the tomb of Ineni. Unfortunately, however, the damage done by modern intruders is great, and there are signs of burning. We can assign the tomb of Aaḥmose to the early Eighteenth Dynasty, and perhaps to the earlier part of the reign of Tuthmosis III.

### Description of the Scenes.

Entering the tomb and turning to the left, we find the first part of Wall E (see Fig. 1) occupied by a scene in which Aaḥmose is shown inspecting agricultural activities on his estate. The great man stands on the right, facing the door, as he should, for he comes from the realms of the dead[1], and holds a walking-stick in his right hand and the ⇨ bâton of office in his left. He is back to back with the offerer of the adjoining scene, and both figures occupy the centre of the wall, so that there is room above for the explanatory legends, and below for the whole of the lowest register. This extends the whole breadth of the wall, unlike the rest of the agricultural scenes, which occupy only the space in front of the aforementioned figure of Aaḥmose and the door.

The sequence of pictures begins at bottom left and proceeds upwards. First come the hoeing of the ground, the sowing and the ploughing, all in the lowest register. In the register immediately above, all that is now visible is a man reaping. Higher up, in the second register from the top, two men carry an enormous basket of reaped corn to the threshing-floor (Pl. xv), where it is trodden out by three oxen, one of which thinks it worth while to enjoy the privilege allowed it by the Deuteronomist. A man sweeps the grain together ready to be removed, and in the top register we see a scribe recording the amount of the heap in which he stands. Before him a man shovels the grain into a corn-measure, while on the left men carry it away in sacks to the conical granary, where

[1] Davies-Gardiner, *Tomb of Amenemḥēt*, 18.



Scenes from the Tomb of Aahmose.

Above: Harvesting Scenes. *Scale* $\frac{1}{2}$.

Below: Musicians at a banquet. *Scale* $\frac{1}{2}$.

it is emptied in through the aperture near the top. In front of the granary is a charming representation of a she-ass. It will be noticed that in this scene the labourers wear over their white waist-cloths a leather net, with a square patch left in the middle to meet the wear of sitting. For an actual specimen of such a net see Petrie, *Arts and Crafts of Ancient Egypt*, Fig. 140[1].

The hieroglyphs above Aaḥmose (Pl. xvi, A) are merely outlined in red and filled in with blue paint. We may translate what remains as follows:

"*Beholding the seasons of summer,* [*inundation*] *and winter by the child* [*of the nursery*] *Aaḥmose....*"

The second scene on Wall E shows Aaḥmose and his wife seated on the right, facing the door, while a man clad in the vestment of leopard-skin, perhaps their son, makes offering to them. Between him and the recipients stands the table of good things with

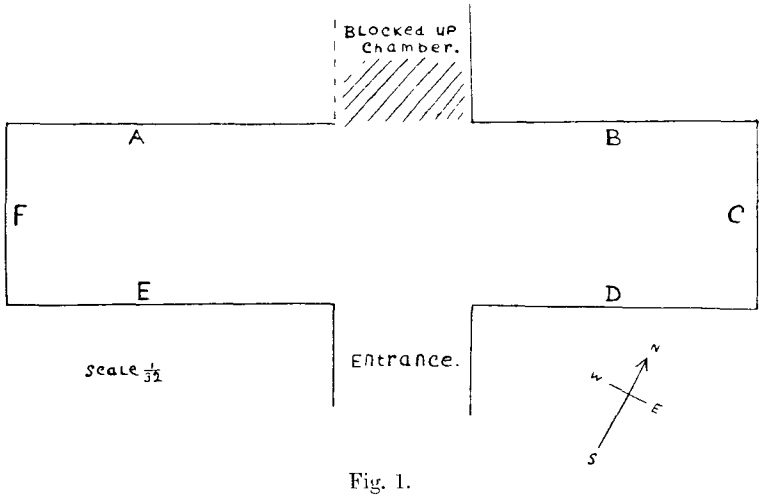



Fig. 1.

a wine-jar behind, and the officiant pronounces the ritual words with right arm raised, and left arm grasping the skin in the usual way. Under the wife's chair is a pet monkey eating fruit (see Fig. 2).

The inscription above him (Pl. xvi, B) may be translated as follows:

"*Recitation: Take to thee every oblation, every good and sweet thing, cool water...and milk...in full tale....*

The text (Pl. xvi, C) above the seated pair runs as follows:

"*The Hereditary Prince and Count, Supervisor of the Mysteries in the House of the Morning, the Scribe of the God's Book, Aaḥmose.... His wife,* [*his*] *beloved, the mistress of the house, Aaḥmose, justified before the* [*Great*] *God, Lord of the West.*"

In the lowest register, barely separated from the ploughing scenes, are visible remains of baskets of fruit, loaves, etc., as a supplement to the table of offerings above.

The scene which occupies Wall F represents the dead man and his wife adoring Osiris. The god, depicted in mummy form, wearing the white crown of Upper Egypt and holding in his hands the crook and flagellum, stands in a shrine on the right with his back to the land of the dead. The legend above him is unusual and interesting (Pl. xvi, D and Note D, p. 60):

"*Osiris, Chief of the Westerners, Onnōphris the justified, Lord of Eternity, who set to*

[1] For other examples in tomb-painting see *op. cit.*, fig. 70 (Menna) and Newberry, *Rekhmara*, Pl. xxi

*right the slaughter of the Two Lands, son of Nūt, heir of Geb, [to] whom was given [the heirship?] in the presence of all the gods to be ruler of all that the sun-disc encircles, while he was (yet) in the womb before he had been born.*"

Behind the god in a single vertical line we find the well-worn prayer for the safety of royal or divine persons (Pl. xvi, E):

"*All protection, life, stability, well-being (?) and health, all enlargement of heart around him forever!*"

Before Osiris is a well-loaded table of offerings, behind which stand Aaḥmose and his wife. Unfortunately their heads and much of the legend above them have been cut out, but the words spoken by Aaḥmose seem similar to those spoken by the deceased in the Introduction to the so-called Negative Confession, Chapter cxxv of the Book of the Dead. We may translate the inscription (Pl. xvi, F) thus:

"*Giving praise to Osiris, doing obeisance to Onnōphris, extolling the Lord of the Necropolis in [all?] his many names, by the Hereditary Prince [and Count],...he saith:...Chief [of the Westerners]...I have come....*"



Fig. 2.

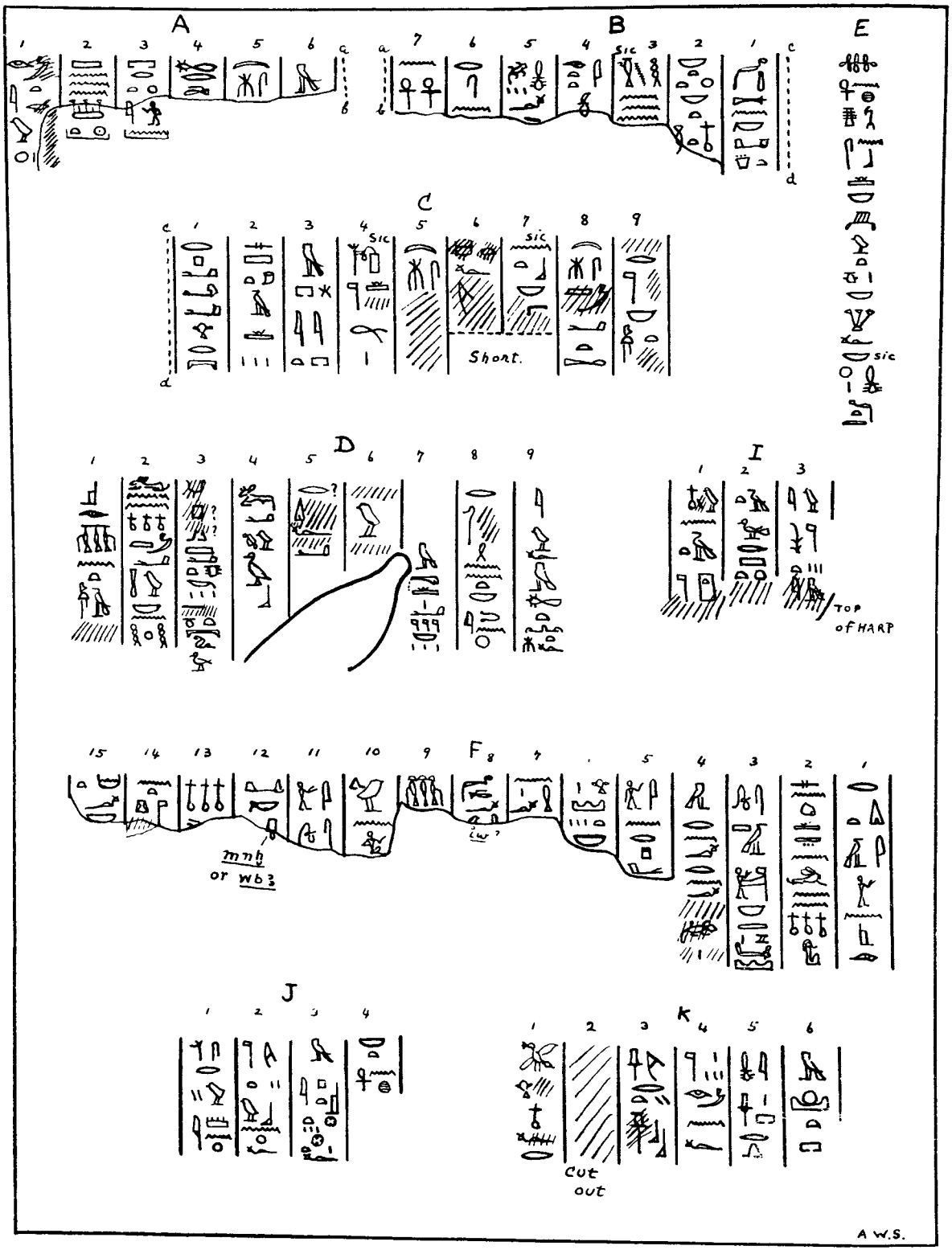
Turning now to Wall A and beginning from the west corner, the first scene in the upper register shows Aaḥmose and his wife receiving offerings. They sit on chairs facing to the right, before a table laden with food; underneath the wife's chair was a goose, whose open bill is all that is now visible.

Before the table stands the offerer with right arm raised in the familiar fashion, while with the left he holds almost horizontally a *ḥs* vase, out of which pour streams of water. Horrible attempts have been made to cut out these three figures. The inscription above the man and woman (Pl. xvii, G) reads:

"*The Hereditary Prince and Count, Supervisor of the Mysteries in the temple (?)...Child [of the nursery] Aaḥmose justified. His wife, his beloved, mistress of the house, Aaḥmose justified.*"

The speech of the offerer (Pl. xvii, H) runs thus:

"*Recitation: Take to thee invocation-offerings of bread and beer, oxen and fowl, every good and pure thing, alabaster and clothing, incense and unguent, all oblations and all fresh plants, all sweet fruits;....*




Inscriptions from the Tomb of Aahmose.

To the right of the last scene we find two registers of musicians (Pl. xv) who are performing at the banquet, and behind them sit the guests who have been invited to share the good things with the owners of the tomb. Here again serious damage has been done both to the musicians and to the songs they are singing, which are fully written out above them. Beginning from the left in the top register, the first player was a harpist, but only the top of his harp now remains. The burden of his song (Pl. xvi, I) is:

"*How happy is the temple...which passeth the day...and the King of the Gods is therein!*"

The second musician is a lute-player, and one is surprised to see the pendulous stomachs, savouring of the 'Amarnah period in art, with which the artist has endowed both him and the man behind him. We may infer that the artist of this tomb considered a sedentary occupation such as that of musician to have an unfortunate effect upon the figure. The lute-player sings (Pl. xvi, J):

"*How powerful is Amen-Rēʿ the divine lover, when he shines forth in Karnak his city, the lady of life!*"

The third musician plays on a small harp of four chords, carried high up. Before him are the words of his song (Pl. xvi, K):

"*The beautiful face...the Power, the lover, at whom the gods desire to look, as the mighty one who cometh forth from the horizon!*"

Behind the top register of musicians are a man and woman, seated on a reed-mat before a table of offerings and a wine jar. All that is now visible, however, is a portion of the man, who smells a lotus flower, and the feet of the woman; her two hands grasping his waist and right shoulder can also be seen. It is possible that these two guests are the parents of either Aaḥmose or his wife.

In the lower register the female section of the troupe is performing; first a row of three women clapping hands, with their song written in front of them (Pl. xvii, L) in which they chant the praises of Amūn:

"*All folk, all folk of the House of* [*Amūn*] *are in festival; it is happy, for Amen-Rēʿ, he is the lover of the Prince!*"

Next come a female flute-player and a woman beating a rectangular tambourine. An attempt to cut them out has destroyed whatever there may have been in the way of an inscription, but there is not space for a song.

Behind these women sit more guests on reed matting, two men and two women, perhaps cousins, or brothers and sisters. The further man holds a lotus bud in his right hand and the nearer a handkerchief in his left, while the further woman lays her hand on the latter's shoulder in gentle caress.

Beneath the seated figures of Aaḥmose and his wife and the two registers of musicians extended a lower register, now almost entirely cut out and without hieroglyphic legends; it showed priests performing funerary ceremonies, and three priests making  *ḥnw* "jubilation"[1], a lector-priest, etc. are still visible, facing left. Behind the lector is perhaps a trace of a man performing *int rd* "bringing the foot"[2].

Passing the blocked-up chamber, we find the first part of Wall B devoted to yet another scene of Aaḥmose and his wife receiving offerings. They sit, facing right, before the usual well-stocked table, which is crowned with flowers, while a standing man performs the required service.

The accompanying inscription (Pl. xvii, N) calls the dead man:

"*The Hereditary Prince and Count whom the King of Upper Egypt hath made great,*

[1] Davies-Gardiner, *Amenemḥēt*, 78.

[2] *Op. cit.*, 93 ff. and XVIII.

*whom the King of Lower Egypt hath advanced, whose* ka *the Lord of the Two Lands hath made, the Supervisor of the Mysteries in the temple...the Royal Scribe Aaḥmose, justified.*"

The words recited by the offerer are as follows (Pl. xvii, M):

"*Take to thee lotus flowers and plants and lotus buds, when they recur as every bloom and every herb of sweet odour at its season; cool water and incense, joints and offering-requirements in full tale, that thy* ka *may be satisfied with them for ever and ever.*"

The second part of Wall B contains two registers which continue as far as the corner, the upper one showing the deceased engaged in spearing fish and hunting birds, the lower one showing fishermen busy at their tasks. The upper scene is designed according to the usual conventions. On either side of a papyrus clump is a small boat; in that on the left stands Aaḥmose spearing fish, while in the right hand one he knocks down birds with his throw-stick, the two figures of him facing to the centre. The inscriptions over this scene get fainter and fainter as one goes to the right and finally become quite illegible. The text (Pl. xvii, O) over the man spearing fish reads:

"*Traversing the marshes and visiting the bird-pools, diverting the heart and spearing fishes in the distant marsh-lands, by the Hereditary Prince and Count, the Confidant of the Lord of the Two Lands, the Supervisor of the Mysteries in the House of the Morning, the Scribe of the God's Book, who doeth according to what is in the heart of the King, Scribe beloved of him, Child of the Nursery, Aaḥmose, justified.*"

Of the inscription over the throw-stick scene all that is legible is the beginning (Pl. xvii, P):

"*Diverting the heart....*"

The scene of fishermen in the lower register is also of the conventional kind. Reading from left to right, we see men drawing in a drag-net, then a man cutting up the fish caught, and finally men with the drag-net closed. No trace of hieroglyphs is visible at all in this scene.

The end wall C was certainly occupied with a scene of hunting wild animals, but it is now almost entirely destroyed. Aaḥmose is seen striding forward and behind him is a woman, while to the extreme right are traces of some trees and a gazelle, but this is all that is visible. The inscriptions, too, are illegible.

Coming at last to Wall D, we find the first part of it given up to a scene of purification. On the left sit Aaḥmose and his wife facing right, before a table of offerings, behind which stands a man who throws water over them from a vessel in his hands. All that is now left of the officiant is his two hands and the vessel, from which proceed two streams of water, one falling on Aaḥmose and the other on his wife, who sits behind. The inscription over the seated pair (Pl. xvii, Q) runs thus:

"*The Hereditary Prince and Count, who conducteth the festival of Bastet, who conducteth the festival of all the gods, who goeth around the lands and traverseth the foreign countries seeking advantages* [*for?*] *his* [*lord?*], *Royal Scribe, Child of the Nursery, Aaḥmose, justified before the Great God, Lord of the West.*"

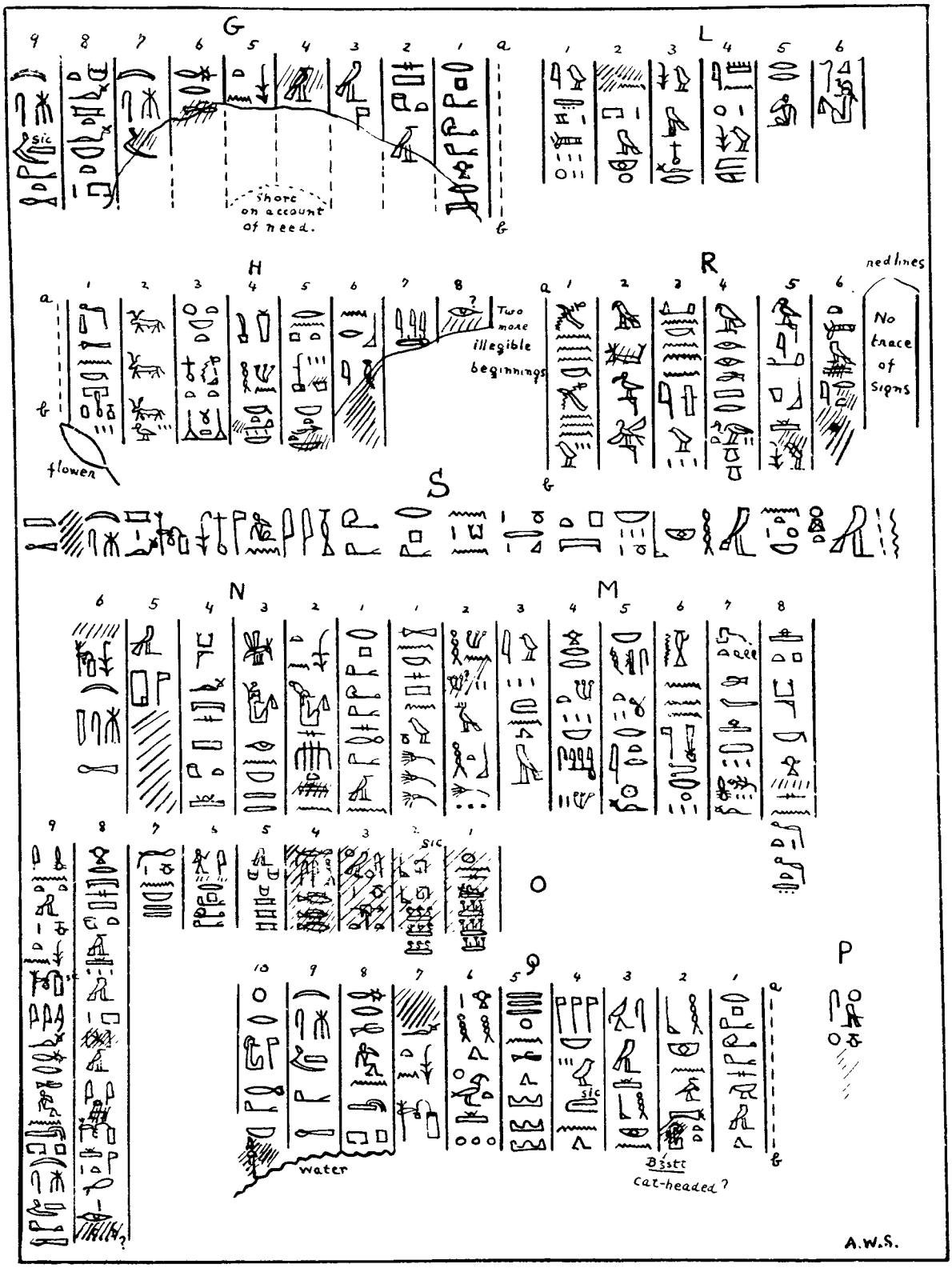
The words spoken by the officiant (Pl. xvii, R) are the ancient formula:

"*Thy purification is the purifications of Horus, Sēth, Thōth and Spreader-of-pinions. There have been given to thee the waters which are in the two eyes of Horus, the two red vessels. Thōth, join him together! What appertains to* [*him*] *is complete.*"

All the hieroglyphs of this scene are painted in blue on a red ground.

The second section of Wall D is divided into two registers, in which funerary priests bring objects connected with the daily cult of the dead[1] towards the seated figures of

[1] For full discussion of this and of accompanying scenes relating to it see Davies-Gardiner, *op. cit.*, 73 ff.




Inscriptions from the Tomb of Aahmose

Aaḥmose and his wife described above. The priests walk left from the tomb-door which leads out to the land of the living, and they wear a white strip across their bodies[1]. Beginning from the left, in the upper register we have a man carrying a pot of burning incense and a pot containing grains of incense, a man carrying a pot with grains of incense, a man with a piece of papyrus (?), and a man who wears a leopard-skin vestment under his white strip, carrying a bowl (?).

In the lower register are a man carrying a *wsḫ*-collar, blue and yellow, with hawk-heads, a man with two strips of linen which hang down, and lastly a man carrying a feather. The two middle men in the upper register, judging from their gestures, are chanting.

The ceiling is of a fairly common-place pattern (Fig. 3) which consists of alternate lines of blue and green lozenges on a white ground with a red centre; the black rings surround a yellow centre, and all spots are black.

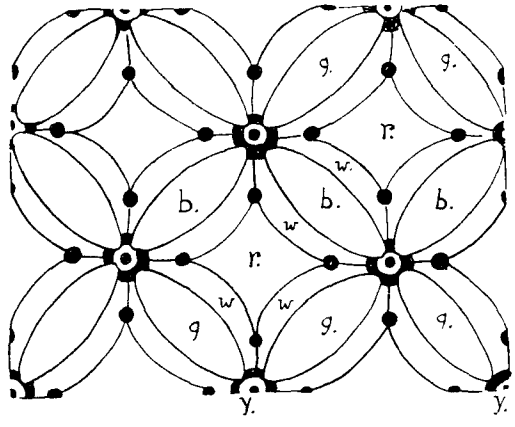



Fig. 3.

Only on the end of the central longitudinal plank which bisects the ceiling, at the left end of the chamber, are there legible hieroglyphs (Pl. xvii, S). We have a statement of the occasions on which Aaḥmose hopes that funerary offerings will be made in his tomb:

"*...in the course of every day, in all the festivals of Heaven and of Earth, for the* ka *of the Hereditary Prince and Count, the favourite of the Good God, the Royal Scribe beloved of him, Aaḥmose, justified.*"

### The Titles of Aaḥmose.

The noble Aaḥmose is known to us only by his tomb, and we would gladly learn more of him. By far the most interesting of his titles is that of Supervisor of the Mysteries in the House of the Morning. This title has been fully discussed by Dr. Blackman in *Journal*, v, 148 ff., and it will there be seen that hitherto it has been known to be held only in the Old Kingdom and in the archaizing Saitic period; this is the first occurrence of it in the long intervening dynasties. In the Old Kingdom the dignity was sometimes borne by persons of the highest rank who held the offices of Vizier and Chief Justice, some of whom were also sons of kings. It was closely connected with offices of palace administration and the royal adornment, and Dr. Blackman has

[1] As e.g. *op. cit.*, XVIII and XXI.

clearly shown that the holders assisted in the purificatory ceremonies performed on the monarch in the temple-vestry (originally the toilet-chamber of the adjoining palace) known as "The House of the Morning," and in the washing of the dead king's corpse which would secure for him eternity.

The title of Scribe of the God's Book was held in company with the aforementioned title by Weshptah, a Vizier and Chief Justice in the Fifth Dynasty[1]. "Conductor of the festival of Bastet" and "conductor of the festival of all the gods" are semi-priestly titles which accord well with that of Supervisor of the House-of-the-Morning ceremonies. Of the title "Child of the Nursery," it need only be said that the royal nursery is of course meant[2], and that the dignity is borne by many nobles of high rank. It probably means that the holder was educated among the Pharaoh's children, after the fashion of Ptaḥshepses, who was brought up with the children of Menkaurēʿ and Shepseskaf.

Finally, if we are to believe Aaḥmose's statement that he is one "who goeth around the lands and traverseth the foreign countries seeking advantages [for?] his [lord?]", we may perhaps infer that he was despatched on missions abroad, either political or commercial, connected with the much-embracing office of Royal Scribe.

### Notes on the Inscriptions.

Plates xvi and xvii.

A. 2. A tiny trace of the top of  seems to be left.

3. Top of  is left. Restore .

4. On the writing out of *ḫrd* see below, footnote 2.

6. Probably the last line.

B. 2. Room for [ ].

5. After  comes a sign, or part of a sign, which is horizontal.

7. This line may belong to A, which adjoins B on the left, but this is unlikely, as the signs are well above the offerer (see foregoing description).
We are probably to understand *pr-ḳ n ʿnḫw*, "thy house of the living."

D. The text above Osiris in his shrine is of considerable interest as being a definite exception to the conventional list of titles which is generally given to him in tomb-scenes, and no parallel example is known to me. We are referred back to the dim past, and the legend of Osiris, when, even after Horus had defeated Sēth in bloody conflicts and had brought his father to life again, the arch-enemy played his last card, and arraigned his divine brother before the council of gods in Heliopolis on charges of which the nature is not clearly known, but which were certainly directed against his claim to the throne of Egypt. But, as the Pyramid Texts[3] tell us, Sēth lost his case. "The Two Truths heard (the case), Shu was witness. The Two Truths commanded that the thrones of Geb should revert to him (Osiris), that he should raise himself up to that which he desired,...that he should unite those who were in Nūn, and that he should bring to an end the words in Heliopolis."

[1] Blackman, *op. cit.*, 150.

[2] Gardiner, *Proc. Soc. Bibl. Arch.*, XXXIX, 32. The writer there states that the tomb presents, as far as he knows, the only examples of the title with *ḫrd* written out; elsewhere the word appears simply as . I owe the reference to Mr. Glanville.

[3] Sethe, *Pyramidentexte*, §§316–318.

2. "who set to right the slaughter of the two lands." A title sometimes given to Osiris as the god who ascended the throne of Egypt to bring peace and plenty after the strife between Horus and Sēth.

5–6. Some word meaning "heirship" should undoubtedly be restored here, but the spacing in Gardiner's hand-copy is not certain.

9. As frequently, it is here stated that the triumphs of Osiris had been foreordained, even before his birth.

F. It is probable that all the lines in this inscription were originally of the same height.

4. The repetition of *rn·f* is probably dittography. Perhaps [] is to be restored after the second *rn·f*, and  certainly after *ḫsꜣ*.

6. Compare Q 4–7. Perhaps we should here see a title such as  (or ), given in Davies, *Five Theban Tombs*, 14, note 8. Since, in the preceding line 5, *ḥꜣty-ꜥ* is naturally to be restored after *rpꜥty*, one of these two titles could be conveniently fitted into it.

8. Here begin the actual words of Aaḥmose's address. The text is too fragmentary to admit of certain reconstruction, but it seems similar to the address of the deceased to the god in the Introduction of the Negative Confession in Chapter CXXV of the Book of the Dead[1]. In this line the top of  is apparently left. All the lines were probably the same height.

G. 3. Restore [].

4–5. These two lines were short on account of need.

I. Varying forms of this song are found in tombs of the Eighteenth Dynasty, and examples may be found in Davies-Gardiner, *op. cit.*, 64, Pls. v, xv. In our text very little can be lost.

J. 2. *ntr mrty*. The epithet *mrwty* or *mryty* is generally passive in meaning, "the beloved one," but in Berlin *Wörterbuch*, II, 104, it is suggested that as the epithet of the god Amūn it may be active, "lover." See also Erman, *Ägyptische Grammatik*, 4th ed., § 430.

K. 3. After *mrty* read  probably.

L. 4–6. *sw m mrr ḥkꜣ*. Observe this early instance of the Pronominal Compound *sw*. See Gardiner, *Grammar*, § 124. For the construction, see Davies, *Five Theban Tombs*, Pl. xxvi, *ꜥꜣ-ḫpr-kꜣ-Rꜥ ntr mrr* [*t*]*w*.

M. 2. Only a trace of the second  (?) is left.

3. For the first occurrence of the third person plural suffix-pronoun *·w* in the Eighteenth Dynasty in *iw·w* "they are," see Gardiner, *op. cit.*, § 34, note 13. The clause here is either circumstantial, "when they recur," or virtual relative, "which recur." For the latter see *op. cit.*, § 323, but the first alternative seems the more likely. The preposition *ḥr* must have been omitted before the infinitive *dbn*, as frequently in later times.

N. 2. After *sḫnt* read  probably.

O. 8. Restore [] after *pr*, as seen by Davies.
Restore [].

Q. 7. Restore probably [].

[1] Budge, *Text*, II, 118 ff.

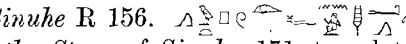
R. In connection with this important scene of the purification of the dead couple Blackman, *Journal*, v, 117 ff. should be read.
For the wording of the formula compare Sethe, *Pyr.*, §§ 830, 842, 1233; Budge, *Book of Opening the Mouth*, passim, *e.g.* II, 3; Moret, *Rituel du culte divin journalier*, 171 ff.; Griffith-Newberry, *El-Bersheh*, Pls. i, x, with the restoration given by Blackman, *op. cit.*, 119.
With regard to the deity *Dwn-ʿnw* "Extender-of-talons" or "Spreader-of-pinions" Dr. Gardiner has given me the following references: *Pyr.*, § 1098, and for this writing Chassinat-Palanque, *Fouilles d'Assiout*, 116, 124, 172 (fully spelt out on 127). For a full discussion of the name see *Zeitschr. f. äg. Spr.*, LVIII, 94 ff.

6. After *tm* read probably .
Restore  after *irt*.

# NOTES ON CERTAIN PASSAGES IN VARIOUS MIDDLE EGYPTIAN TEXTS

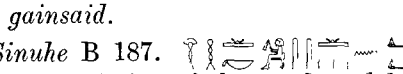
By AYLWARD M. BLACKMAN

These notes are the result of discussions on points of grammar and syntax which I have had with my pupils from time to time, during the last few years, in the course of my lectures at Oxford on Middle Egyptian Literary and Historical Texts.

(1) *Sinuhe* R 156. . Gardiner in his *Notes on the Story of Sinuhe*, 171, translates:—*Forth he came against me where I stood, and I posted myself near him.* I propose the following rendering, which, to my mind, is not only more accurate grammatically but gives a better sense:—*Then he came forth against me while I waited, for I had posted myself near him.*

*ḥḳ* not uncommonly means "to wait" (e.g., *Pyr.*, § 1197; *Lebensmüde*, 7; Blackman, *Meir*, IV, 43). *Dı̓·n·ı̓* is surely pluperfect here. If the Egyptian writer had meant to say what Gardiner represents him as saying, would he not have written *ı̓w dı̓·n·ı̓ wı̓*?

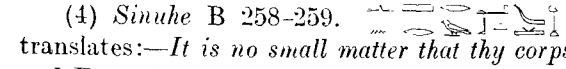
(2) *Sinuhe* B 183. . Gardiner, and Erman (*Literatur*, 49 f.) are in agreement as to the meaning of this sentence, the former translating:—*Thou hadst not spoken in the council of the nobles that thine utterances should be banned*, and the latter:—*Du hast in der Beratung der Räte nicht so geredet, dass man sich deinen Worten widersetzte.* Both seem to have overlooked the fact that *mdw m* means "to speak against[1]," a meaning that suits this passage admirably. Translate therefore:—*Thou didst not speak against the counsel of the magistrates, that thine utterances should be gainsaid.*

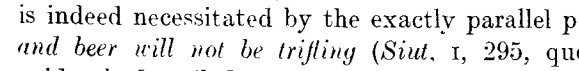
(3) *Sinuhe* B 187. . Gardiner, *op. cit.*, 67, rightly rejects his original translation of the words *wȝḥ·k špssw, du sollst lange geniessen die herrlichen Dinge*, there being no authority for this sense of *wȝḥ*. He furthermore states that "of the active meanings of that verb 'to place,' 'to offer,' 'to add,' 'to leave,' none is here suitable." He therefore suggests that *wȝḥ* must here bear its common intransitive sense "to endure," "live long," a suggestion which entails the insertion of the preposition *m* before *špssw*, and he emends the text accordingly.

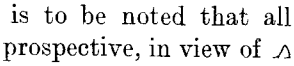
Textual emendation is always to be avoided if possible, and in this case, as will be seen, it is really unnecessary. In certain passages in *Wenamūn* and *Papyrus Lansing* the verb *wȝḥ* clearly means "to stack," "heap up," and "to stow" (a cargo on board ship): *ḥmww ntı̓ m tȝ wḫrt ḥr fȝ pȝ ḫt ḥr wȝḥ·f, The workman who is in the dockyard carries the timber and stacks it* (*Pap. Lansing*, 5, 2): *ptr pḥ pȝ pḥ n tȝık ṯt·ḫt ı̓wf wȝḥ, Behold, the last of thy timber has arrived and is stacked* (*Wenamūn*, II, 48–49; similarly II, 62), *Thou art one that aboundeth in crews skilled in rowing: nȝıw ṯsyw ndm m fȝ wȝḥ, Their cries are pleasant while carrying and stowing* (*Pap. Lansing*, 15, 7).

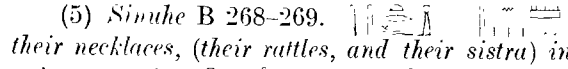
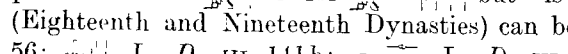
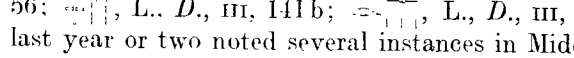
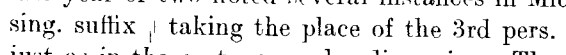
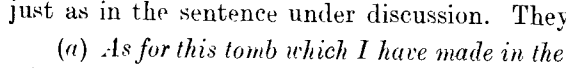
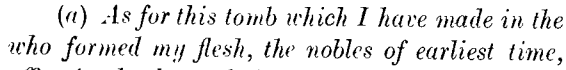
[1] *E.g.*, Berlin *Wb.*, II, 179; *Pyr.*, § 16 (*mdw m rn·f dr*, "them that speak evilly against his name"); Newberry, *Rekhmara*, VII, 14 = Gardiner, *Zeitschr. f. ag. Spr.*, LX, 68.

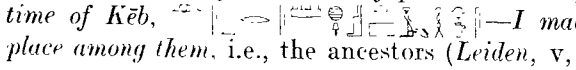
In view of these examples *wȝḥ·k špssw n dìdì·sn* surely means *Mayest thou stow away* (or "*lay up*," "*set aside*") *the fine things of their giving.* It might be pointed out that the English "set aside" and the Egyptian *wȝḥ* are exact parallels in their twofold meaning of "to store up," "put by," "save," and "lay aside," "take off." For *wȝḥ* used in the latter sense see Section (8), p. 65 below.

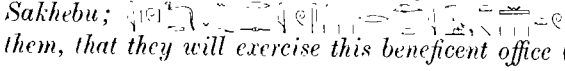
(4) *Sinuhe* B 258–259. . Gardiner translates:—*It is no small matter that thy corpse should be buried without escort of Pedtiu,* and Erman's rendering is practically identical (*op. cit.*, 54).

Considering all the evidence collected by Gunn and Gardiner as to the meaning of *n sḏm·f, n sḏm·n·f, nn sḏm·f,* the words *nn šrr ꜥbt ḫȝt·k* must surely mean *Thy burial will not be a small matter* (*i.e.*, Sinuhe will have a fine and costly funeral). Such a rendering is indeed necessitated by the exactly parallel phrase , *This bread and beer will not be trifling* (*Siut.* I, 295, quoted by Gardiner, *Grammar*, § 445, who evidently [see *ibid.*, n. 4] now takes the same view as I do as to the meaning of *nn šrr* in the *Sinuhe* passage).

*Nn bs·k* in the second half of the passage I regard as passive *sḏm·f* negatived and would translate *nn bs·k in Pḏtyw, Thou shalt not be escorted by Pedtiu*, as the parallelism with *nn šrr ꜥbt ḫȝt·k* and the sense demand. In § 424, 3 of his *Grammar* Gardiner states that there is no sure ground for assigning to the passive *sḏm·f* either *nn bs·k* or other examples like it, i.e., *nn šnꜥ·k* (*Urk.*, IV, 116, 6; 147, 17; 498, 9; 1220, 13), *nn ḫsf·k* (*op. cit.*, 520, 9). However, in addition to what I have already said in favour of my own rendering of *nn bs·k* as against Gardiner's, it is to be noted that all the verbs in the main clauses parallel with *nn šnꜥ·k* seem to be prospective, in view of , *The harvest will come to thee* (*in abundance*) (*Urk.*, IV, 116, 15; 148, 10; 499, 4).

(5) *Sinuhe* B 268–269. , *Then brought they their necklaces, (their rattles, and their sistra) in their hands.* Gardiner in his *Notes*, 269, points out that  is for  but "is probably a mistake, though some parallels (Eighteenth and Nineteenth Dynasties) can be quoted, *e.g.*, , Nav., *Deir el Bahari*, 56; , L., *D.*, III, 141b; , L., *D.*, III, 140c, 19." However, I have during the last year or two noted several instances in Middle Egyptian texts of the 3rd pers. fem. sing. suffix  taking the place of the 3rd pers. plur. , and without the plural strokes, just as in the sentence under discussion. They are as follows:

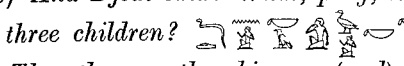
(*a*) *As for this tomb which I have made in the desert of Todjeser, in the midst of the fathers who formed my flesh, the nobles of earliest time, the possessors of monuments, such as held office in the days of old*[1], *them of primordial date, that first made the land of Ḥeḳet since the time of Kēb,* *—I made it* (the tomb[2]) *in order to embellish a place among them*, i.e., the ancestors (*Leiden*, V, 4).

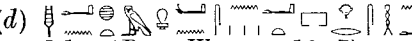
(*b*) *She is the wife of a priest of Rēꜥ that hath conceived three children of Rēꜥ, lord of Sakhebu;* , *and he hath said concerning them, that they will exercise this beneficent office* (*Pap. Westcar*, 9, 9–11).

[1] *Nhw mnw m ỉsw ỉwrt*, lit. "the possessors of monuments as ancient of office" (see Gardiner, *Grammar*, § 96, 2).

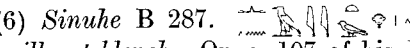
[2] *Ỉs*, "tomb," is masculine, so *sw* would be more correct than *st*. For a similar loose use of *st*, see *Pap. Westcar*, 9, 3–4.

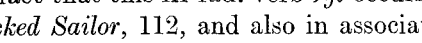
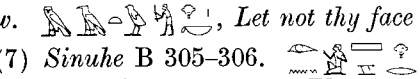
[3] This seems to me more probable than Gardiner's "he hath promised her" (*Grammar*, 420) and Erman's "er hat zu ihr gesagt," which would surely be *ỉr dd·n·f n·s*.

(*c*) *And Djedi said: What, pray, is this mood, O King, my lord? Is it on account of these three children?* , *Herewith I say*[1] *unto thee: Then thy son, then his son, (and) then one of them* (*Pap. Westcar*, 9, 12–14).

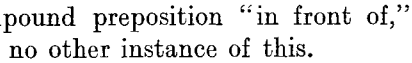
(*d*) , *And they shut (the door of) the chamber upon them and her* (*Pap. Westcar*, 10, 7).

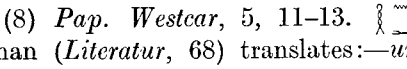
See also *Urk.*, IV, 657, 16–17; 658, 5, for two more examples.

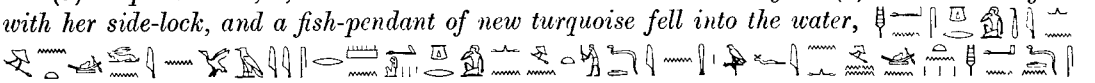
(6) *Sinuhe* B 287. , *The face of him that hath beheld thy face will not blench.* On p. 107 of his *Notes* Gardiner says that *ỉyt* is a *crux* and may be corrupt, and on p. 162 rightly points out that it can only be a *sḏm·f* form, not a fem. substantive, and so Dévaud's suggestion that it may be connected with the verb *ỉwi* (*Pyr.* 924) is to be ruled out.

Both Gardiner and Dévaud (see e.g., *Rec. de trav.*, XXXVIII, 198) have overlooked the fact that this III-rad. verb *ỉyt* occurs again in the variant form , *ỉwt*, in *Shipwrecked Sailor*, 112, and also in association with *ḥr*, "face," i.e., *Fear not, fear not, good fellow.* , *Let not thy face blench* (lit. *blench not as to thy face*).

(7) *Sinuhe* B 305–306. . In their rendering of this sentence:—*There was made for me a sepulchral garden, in which were fields, in front of my abode*, and *Man machte mir einen Garten*(?) *in der Totenstadt*(?) *mit Äckern darin, angesichts der Stätte*(?), Gardiner and Erman agree in taking *m ḫnt n* as a compound preposition "in front of," though Gardiner (*Notes*, 116) owns that he can cite no other instance of this.

In the stele of Khentemsemti, however, line 11 (= *Hieroglyphic Texts from Egyptian Stelae, &c., in the British Museum*, II, 9), *m ḫnt* in  is, according to Sethe[2], used as a temporal adverb[3], and the sentence is to be rendered: *I came first unto his Majesty.* In the passage with which we are concerned in the Story of Sinuhe *m ḫnt* may also well have this temporal meaning, as I indeed had suggested when lecturing on this text some time before I had read Sethe's note on *m ḫnt* in the Khentemsemti text. I then, as I do now, translated the passage:—*There was made for me* (or *assigned to me*) *a tomb-garden, where there were fields formerly as far as the town*, i.e., the ground now covered by Sinuhe's tomb-garden had formerly been occupied by fields extending as far as the town of Lisht.

(8) *Pap. Westcar*, 5, 11–13. . Erman (*Literatur*, 68) translates:—*und man gebe diese Netze diesen Frauen anstatt*(?) *ihrer Kleider*; while Maspero (*Popular Stories of Ancient Egypt*, 1915, 28) renders *wỉḏ ḥbsw·sn* simply by *as clothing.* Surely *wỉḏ* is the perf. pass. partic., the construction being that dealt with in Gardiner, *Grammar*, § 377, and the passage should be translated:—*and give these nets to these women, whose garments have been laid aside.* The partic. *wỉḏ* is in the masc. sing. form because *nn* (*n*) precedes the fem. plur. noun *ḥmwt* (Gardiner, *op. cit.*, § 511, 2).

(9) *Pap. Westcar*, 5, 15–20. *Then one who was at the steering-oar*(?) *became entangled with her side-lock, and a fish-pendant of new turquoise fell into the water,* 

[1] See Gardiner, *op. cit.*, § 414, 5. Gardiner's translation (*op. cit.*, 421) "of whom I said" seems to me unlikely. Would not *ḏḏ·n·ỉ r·sn* be required?

[2] *Erläuterungen zu den aegyptisch. Lesestücken*, 115.

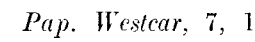
[3] *Cf.*, too, *Urk.*, VI, 27, 9–10.

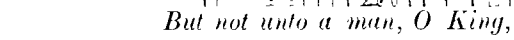
. In all the published translations[1] *ḥr·n·s gr·tỉ nn ḫnt wn·in pỉy·s rmn gr nn ḫnt* is rendered by: *and she became silent and ceased rowing, and her side became silent and ceased rowing.* Erman explains "she became silent" by suggesting in a footnote that the girls sang at their rowing to help them to keep time, as is done on Nile-boats to-day.

All translators seem to have overlooked the fact that a by no means uncommon meaning of *gr* is "to desist," "cease," "stop," a meaning that ϭω also possesses in Coptic[2]. The following examples will suffice:—*ỉḫ gr tȝ m ḫrw, So would the land cease from noise* (*Admonitions*, 6, 1); *ḏr ntt ỉr gr m ḫt pḥ sshm ỉb pw n ḫrwy, For as to him that desisteth after attack, he is a strengthener of the enemy's heart* (*Aegypt. Inschr. aus den königl. Museen zu Berlin*, 1157, 9).

With regard to *ỉn n ḫnn·n·tn*, it is usually taken for granted that *ḫnn·n·tn* is a corrupt writing, since a geminated IIIae inf. verb in the form *sḏm·n·f* is quite abnormal. But is it possible to accept the reading as it stands and explain it thus? *'In n ḫn·n·tn* would mean either "do you not row?", which in this context is a senseless question, "Were you not rowing?" (in the past), equally senseless, or "Cannot you row?" (without any hint as to duration). Might not *n sḏm·n·f* with gemination possibly express the English "not go on doing" something? In that case *ỉn n ḫnn·n·tn* would mean "Are you not going on rowing?", or "Can you not go on rowing?", which gives exactly the meaning required in this particular context.

The whole of this passage in *Pap. Westcar* would then be rendered:—*And she stopped still and rowed not, and so her side stopped still and rowed not. And his Majesty said: Can ye not go on rowing? And they said: Our steerswoman hath stopped still and roweth not.*

(10) *Pap. Westcar*, 7, 17–20.  to . In view of the examples of similar formulae of greeting quoted by Gardiner and Sethe in their *Egyptian Letters to the Dead*, 13, and of Sethe's note in his *Erläuterungen zu den aegyptisch. Lesestücken*, 38, my translation of this passage in *Journal*, XIII, 189, needs correcting and should run as follows:—*Thy condition is like that of one that liveth before becoming old,—(though) in old age, the time for death, enwrapping, burial,—sleeping on*[3] *until daybreak, free from malady, etc.*

(10) *Pap. Westcar*, 8, 15–17. *And his Majesty said: Have brought unto me the prisoner*[4] *that is in the prison, on whom sentence hath been passed. And Djedi said:* , *But not unto a man, O King, my lord. Behold, one has never commanded to do the like thereof unto the Noble Flock.*

This is the obvious rendering of *m·k n wḏ·tw*, etc., and is, indeed, the only syntactically possible one, for *m·k* regularly introduces a statement of fact, past or present, and never (so far as I can find) a question. Erman[5], however, failing to grasp the true significance of *tȝ ḫwt špst* translates:—*Nicht doch an einem Menschen, o König mein Herr. Sieh, befiehlt man nicht lieber etwas solches an dem herrlichen Vieh zu tun?* stating in a footnote that the cattle are designated "herrlich" as being the property of the king. Erman is compelled to turn an assertion into a question because, if the words *tȝ ḫwt špst*

[1] Erman, *op. cit.*, 68; Maspero, *op. cit.*, 28; Griffith in Petrie, *Egyptian Tales*, I, 18.

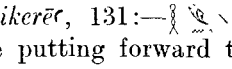
[2] Steindorff, *Koptisches Handwörterbuch*, 285.

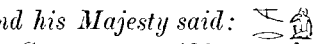
[3] *Sḏr* is a participle and is parallel with *ḫḥ* in line 17.

[4] "The," not "a, prisoner," because of *nty*.

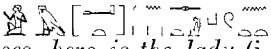
[5] *Op. cit.*, 71.

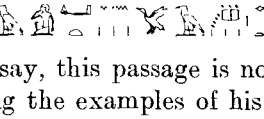
bear the meaning he assigns them, and yet the sentence containing them is translated as I have translated it above, the narrative would shortly afterwards make Djedi act in direct contradiction to his protest, for an ox is brought in and its head cut off. But even so Erman does not really avoid the difficulty caused by his interpretation of *ỉs ꜥwt špst*, for Djedi does not at once, as one would expect, experiment on a quadruped, but on a goose (*smn*).

As I have pointed out for some time past in my lectures on *Pap. Westcar*, "the Noble Flock" must mean human beings, a view that finds confirmation in the well-known passage in *The Instruction for Merikerēʿ*, 131:—, *Well tended are men, the flock of God.* Since putting forward this suggestion in my lectures, and while in the midst of writing this article, I found that Professor Spiegelberg had also come to this conclusion, which he has expounded in *Zeitschr. f. äg. Spr.*, LXIV, 89 f., with further confirmatory evidence.

(11) *Pap. Westcar*, 9, 8–9. *And his Majesty said:* . Gardiner in his *Grammar*, p. 420, translates:—*Indeed I should like it! But as regards what thou hast said, who is this Reddjedet?* He takes, almost certainly rightly, *nỉ ḏdy·k* as equivalent to *ỉr nỉ ḏdy·k*, but regards *ḏdy* as a perfective pass. participle and not as a prospective relative, as does Gunn. The latter translates:—*I shall be pleased with it, what you are going to say* (in answer to my question); *who is she, this Reddjedet?*

I agree with Gunn, as against Gardiner, in regarding *ḏdy·k* as prospective relative form, but at the same time venture to offer the following translation, which differs somewhat from that of either of these two scholars:—*Indeed, I want it!* (i.e., the information about the secret chambers). (*But now for*) *that which thou art* (or perh. *wast*) *about to tell* (*me*)—*who is this Reddjedet?*

(12) *Pap. Westcar*, 10, 4. . Surely the correct translation is:—*My mistresses, here is the lady* (i.e. *my wife*[1]) *in travail!* (lit. *Behold, it is the lady who is in travail*), *and it is difficult for her to give birth*, and not as Erman and all other translators render, *Meine Damen, seht, hier ist eine Frau, die in Wehen liegt, etc.* In view of the following *ntt, st* must be defined and cannot mean "*a* lady."

(13) *Pap. Westcar*, 11, 15–17. . Strange to say, this passage is not quoted by Gunn on either pp. 26–32 or xv f. of his *Syntax*, among the examples of his postulated prospective pass. participle. Yet it certainly favours his suggestion, for *a chamber that can be locked up* suits the context better than *a locked-up chamber*, the usual rendering[3].

*R ỉwt·n ḥr ḫnt ⟨m⟩ mḫty* is left incompletely translated by Erman: *bis wir wiederkommen.....* Griffith renders: *Until we return northward, dancing*; and Maspero: *Until we return dancing northwards.*

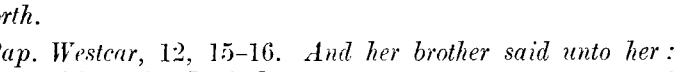
[1] A Modern Egyptian in similar circumstances would say *es-sitt*, "the lady," meaning "my wife."

[2] The pl. determ.  is either a mistake of the scribe for , which it resembles, or, owing to this similarity,  was omitted by the scribe, an omission made the easier by the initial *m* of the next word *mḫty*.

[3] Erman, *op. cit.*, 75; Maspero, *op. cit.*, 39 f.; Griffith in Petrie, *Egyptian Tales*, I, 41. Gardiner, who does not accept Gunn's prospective pass. partic., omits to record this occurrence of—as he would doubtless regard it—the old perfective in a virtual relative clause (*Grammar*, § 317, n. 10).

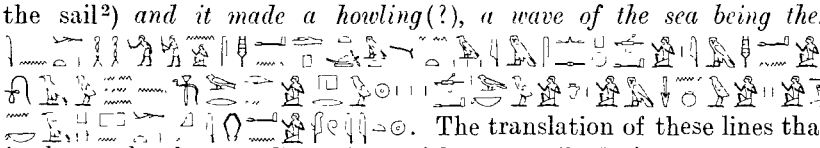
All the translators have overlooked the fact that *iwt ḥr* means "come back from" a place, etc., and, with following infinitive, "come back from doing" something, e.g., *iwt·i ḥr ḳmt ḥr·i bdš, When I came from Egypt I was downcast* (Gardiner-Peet, *The Inscriptions of Sinai*, 26, 5–6); *ii·ni ḥr irt swɜt·ni ḥr·s, I came back from doing* (sc. *irt*) *that on account of which I had passed by* (*Hieroglyphic Texts from Egyptian Stelae, &c., in the British Museum*, II, 574, 13–14).

The whole passage quoted should therefore be translated:—*Pray you, put the one bushel of barley here in a chamber that can be*(?) *locked up, until we come back from dancing* ⟨*in*⟩ *the north.*

(14) *Pap. Westcar*, 12, 15–16. *And her brother said unto her:* . All hitherto published translations of the words *ir is irt pɜ iyt* entirely disregard grammar and merely aim at making some sense of what the translators obviously regard as a corrupt or anyhow practically unintelligible group of words.

But if *is* be taken as an interrogative particle, and *irrt* as an imperfective pass. participle feminine and the subject of *ir*, *pɜ iyt* being the object, quite good sense is obtained and the rules of grammar strictly preserved, viz., *Doth what hath to be done*[1] *mean* (lit. *make*) *coming unto me and my taking part* (lit. *I taking part*) *in the betrayal?*

 might of course be read , *irt(i)·t*, which would make even better sense:—*Doth what thou wouldest do mean coming unto me, etc.*

(15) *Shipwrecked Sailor*, 32–45. *A storm burst forth while we were yet at sea, ere we approached the land. We flew before the wind* (*fɜ·tw ḏ<sup>ɔ</sup>w*, lit. *the wind was carried*, i.e., by the sail[2]) *and it made a howling*(?), *a wave of the sea being therein of eight cubits,* . The translation of these lines that I am about to offer is the result of many discussions with my pupils during my lectures on this text:—*and the mast struck*[3] *it* (the wave, *i.e.*, went overboard) *for me. Then the ship perished, and of them that were therein not one survived. And I was cast on to an island by a wave of the sea, and I spent three days alone, with mine heart* (*only*) *as my companion, lying helpless within the crow's-nest, for I had swooned.*

It is just possible that *ir·f whmyt* does not mean "it made a howling" but "it redoubled (its fury)," lit. "it did a repeating."

The force of the dative *n·i* in *in ḫt ḥḥ n·i s(y)*, "the mast struck it (the wave, *i.e.*, went overboard) for me," may be "taking me with it"; otherwise the sailor would have gone down in the ship.

*Sḏr* not infrequently has the meaning "be inert," "inactive," "helpless," as Gunn has pointed out on p. 28 of his *Syntax*, and to assign this meaning to *sḏr·kwi* in line 42 suits the context admirably.

*Kɜp n ḫt* has caused considerable difficulty, but is generally taken to mean "the shelter of a tree." In the two other instances where it occurs *kɜp*[4] has a distinctly concrete meaning—a constructed hiding-place or shelter. The phrase "the mast struck it (the wave) for me," *i.e.*, probably went overboard taking me with it, closely connects the

[1] See Gardiner, *Grammar*, § 371.

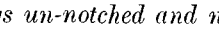
[2] For this idiom see Gardiner, *Notes on the Story of Sinuhe*, 93; Dévaud, *Sphinx*, XIII, 94–97; *Rec. de trav.*, XXXVIII, 195.

[3] See Erman, *Zeitschr. f. ag. Spr.*, XLIII, 8, note 2.

[4] Dévaud, *op. cit.*, 195 with note 1.

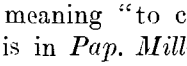
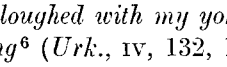
sailor with the mast, and, if my interpretation of *n·i*, "for me," is correct, it was on the mast that the sailor was washed ashore. I suggest, therefore, that *kȝp n ḥt* does not mean "the shelter of a tree," but "the shelter of the mast," *i.e.*, the crow's-nest[1]. That is to say the sailor was on the look-out in the crow's-nest when the mast went overboard and was washed ashore still in it and "lay helpless" in it for three days.

*Ḳni·n·i šwyt*, lit. "I embraced the shadow," is explained by Erman, who translates *sḏr·kwi m kȝp n ḥt*, "ich schlief unter einem Baumdach(?)" as meaning "ich suchte ihn auf." If my rendering, however, of *sḏr·kwi m kȝp n ḥt* is correct, *ḳni·n·i šwyt* cannot mean "I sought the shade," for the sailor was already in the *kȝp* when the ship was wrecked. I have therefore supposed that the words "I embraced," or "had embraced, the shadow" are not to be taken in their literal sense, but mean "I had swooned." Compare the somewhat similar conception of fainting in the Arabic idiom غُشِيَ عَلَيْهِ, "he has swooned," lit. "it has been covered or veiled upon him."

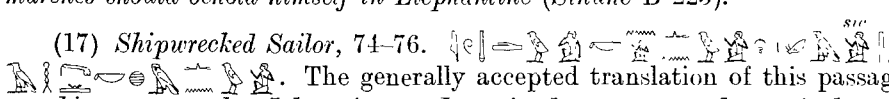
(16) *Shipwrecked Sailor*, 47–50. *I found figs and grapes there, all manner of fine leeks, sycomore figs un-notched and notched*[2], , *and cucumbers as though they were tended.*

Erman[3] and Griffith[4] leave *mi ir·t(w)·s* untranslated. Maspero[5] gives a free rendering, "at will."

*'Ir·t(w)·s* is the 3rd pers. fem. sing. of the passive *sḏm·tw·f*, evidently used instead of the 3rd pers. plur., because the subject of the verb consists of a number of nouns denoting inanimate objects[6].

The verb *irí* bears the meaning "to cultivate," "tend" in more than one other instance. The best example is in *Pap. Millingen*, 2, 11–12:—, *It was I who cultivated barley.* Another is:—*Thou rejoicest in thy tillage in thy portion of the Field of Iaru;* , *thy provision is what thou hast tended* (*Urk.*, IV, 116, 13 f.); and also, I am inclined to think:—*I ploughed with my yoke of oxen* (nfrwt)  *in the fields of my own tending*[6] (*Urk.*, IV, 132, 10).

For *mi*, meaning "as though," "as if," cf. *mi mȝȝ sw iḏḥi m ȝbw, as if a man of the marshes should behold himself in Elephantine* (*Sinuhe* B 225).

(17) *Shipwrecked Sailor*, 74–76. . The generally accepted translation of this passage is:—*Thou art speaking unto me, but I hear it not. I am in thy presence and my wits have flown.* I cannot help thinking that *sḏm* has here the same meaning "understand" that it possesses in three New Egyptian instances known to me.

(*a*) *He came, and the first cow entered the byre. And she said unto her herdsman: Behold, thine elder brother standeth waiting for thee* (*ḥr r-ḥȝt·k*) *with his lance in order to slay thee. Flee thou from before him. wn·in·f ḥr sḏm pȝ ḏd tȝy·f iḫt ḫȝwti, And he understood what his first cow had said* (*Pap. d'Orb.*, 5, 7–9).

(*b*) *nn mn wr n im·tn iw·f sḏm mdt ḳmt, Surely there is one among you that understandeth Egyptian!* (*Wenamūn*, 2, 77).

[1] For a crow's-nest on the masts of Egyptian and other ships see Erman-Ranke, *Aegypten*, 648, fig. 269.

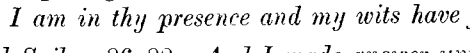
[2] See L. Keimer, *Ancient Egypt*, 1928, 65 f.; *Acta Orientalia*, 1928, 287 ff.

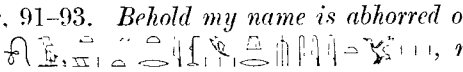
[3] *Op. cit.*, 58. [4] *Op. cit.*, 83. [5] *Op. cit.*, 101.

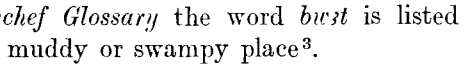
[6] Such a use of the 3rd pers. sing. fem. suffix does not seem to be noted in the grammars; but *cf.* the use of this suffix noted in Gardiner, *Grammar*, § 511, 2; see also above, Section 5, pp. 64–5.

(c) *Thine heart is heavier than a great monument of an hundred cubits in height and ten in thickness, that is finished and ready for loading. thm·n·f nfw ʿšȝt sḏm·n·f mdt n nȝ rmt, It hath mustered many sailors, and it hath understood the words of the men* (*Pap. Lansing*, 2, 4–5).

Possibly then our passage should be translated:—*Thou art speaking unto me, yet I understand it not. I am in thy presence and my wits have flown.*

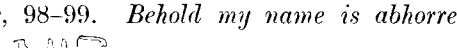
(18) *Shipwrecked Sailor*, 86–88. *And I made answer unto him,* , *mine hands being folded in his presence.* Erman[1] translates *ʿwy·i ḫȝm*:—*indem ich die Arme vor ihr krümmte;* Maspero[2], *my hands hanging down before him.* Erman in his note on these words in *Zeitschr. f. äg. Spr.*, XLIII, 12, says: "Die 'gekrümmten' Arme bezeichnen die bekannte demütige Stellung der Ägypter, eine Verneigung wobei die Arme herabhängen und leicht gebeugt sind." But the modern Egyptian, when addressing or being addressed by a superior, regularly stands with his hands folded on his middle, sometimes covering them with the sleeves of his *ḳuftan*, if he happens to be wearing that long-sleeved garment. Surely this is the attitude described by *ʿwy·i ḫȝm* in our passage, and *ḫȝm* must also bear the same meaning in *Pap. Prisse*, 5, 11.

(19) *Lebensmüde*, 91–93. *Behold my name is abhorred on thine account, more than the odour of birds,* , *more than the bwȝt of willows where the geese are.*

In the *Golenishchef Glossary* the word *bwȝt* is listed next to , which apparently means a muddy or swampy place[3].

It also occurs twice in *Pap. Lansing*, where in the first instance[4] it is associated with the throwing of the boomerang and thus with waterfowl and sport:—*m rdi ib·k n tȝ bwȝt mikhȝ ḳmȝ šp, Set not thine heart on the bwȝt, put behind thee throwing and hurling* (2, 1). In the other instance the word is merely associated with amusements and dissipations which the writer denounces[5]:—*The bwȝt is before thee every day, like a chick after its mother. Thou settest off*[6] *to the dance. Thou consortest with revellers. Thou makest thyself a dwelling in the brewers' quarter, like one that craveth to drink beer* (8, 4–6).

It is clear from these examples that *bwȝt* means a swampy piece of ground overgrown with bushes, haunted by wildfowl, and frequented by sportsmen out fowling, *i.e.*, a "covert." Accordingly *r bwȝt nt tȝiw ḫr msyt* is to be translated:—*more than the covert of willows where are the geese.*

(20) *Lebensmüde*, 98–99. *Behold my name is abhorred on thine account,* .

Erman originally[7] translated these words:—*mehr als ein Weib, gegen das zu dem Manne Lüge gesagt wird*, and more recently[8]:—*mehr als der eines Weibes wenn gegen sie Lüge zu dem Manne gesagt wird.*

[1] *Op. cit.*, 59. [2] *Op. cit.*, 102.

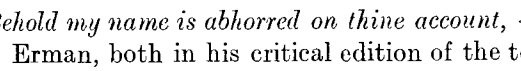
[3] See Berlin, *Wb.*, II, 134; Erman-Lange, *Papyrus Lansing*, 52.

[4] See Blackman-Peet, *Journal*, XI, 285. [5] *Op. cit.*, 291.

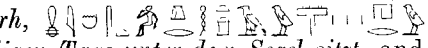
[6] Peet and I translated , *Thou givest way to dancing.* But *rdi wȝt r* in view of the use of ϯ-ογοϊ in Coptic, can only mean "direct one's way to," "go to," e.g., *Now* (*Father Longinus*) *was dwelling at the ninth milestone of Alexandria, being distant nine miles,* ⲧⲉⲥⲫⲓⲙⲉ ⲁⲉ ⲛⲉⲥϯ-ογοϊ ⲉⲥⲱⲙⲉ ⲛ̄ⲥⲱϥ, *And the woman was going (thither) seeking him* (Zoega, *Catalogus*, 337, lines 27 ff.).

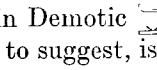
[7] *Gespräch eines Lebensmuden*, 55. [8] *Literatur*, 127.

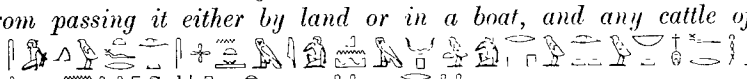
In support of his rendering of *ṯzy* as "husband," Erman refers to Petrie, *Koptos*, XII, 2, where this meaning is made clear by the suffix *s*, "her man." But if the author of the *Lebensmüde* had meant "husband" in the passage in question, he would surely have written *ṯzy·s* and not the quite indefinite *ṯzy*. As the passage stands it can only mean:—*more than a woman against whom a lie hath been told*[1] *on account of a man*, i.e., she has lost her reputation owing to malicious gossip about a supposed lover.

(21) *Lebensmüde*, 99–101. *Behold my name is abhorred on thine account,* . Erman, both in his critical edition of the text (*Gespräch*, 55) and in his *Literatur* (127), has failed to grasp the meaning of these words, rendering them in the latter work *mehr als der eines starken Kindes, gegen das gesagt wird, es... seinem Hasser.*

If *msdw* is a perf. pass. partic., as I have long assumed—and this is also Gardiner's view[2]—the obvious, in fact only possible, translation of these words is:—*more than a sturdy child concerning whom it is said: "He belongeth to his hated one* (i.e., *rival*)." "His" of course refers to the child's mother's husband, to whom what he regards as the offspring of his wife's adultery is all the more odious because it is such a fine-looking child.

(22) *Lebensmüde*, 132–134. *Death is in my sight* (i.e., *I regard death*) *to-day like the odour of myrrh,* . Erman translates[3]:—*wie wenn man am windigen Tage unter dem Segel sitzt*, and states in a footnote that the meaning probably is that "one is relieved from rowing," and so can sit at ease. But why is *ḥtzw* plural? One would expect the singular, and Erman, be it observed, renders the word as though it were singular.

It should be pointed out that in Demotic , plural of , "a sail," means "awning[4]." That, I venture to suggest, is also the meaning of *ḥtzw* in the passage we are discussing, which should accordingly be translated:—*like sitting under an awning on a windy day.*

(23) *Berlin* 14753[5]. *Boundary which has been made...to prevent any Nubian going northward from passing it either by land or in a boat, and any cattle of the Nubians,* .

Breasted[6] translates:—*except a Negro who shall come to do trading in Iḳen, or with a commission. Every good thing shall be done with them, but without allowing a ship of the Negroes to pass by Ḥeḥ going down stream, for ever.*

This rendering entails textual emendation, namely substituting *ir·t(w) ḫt nbt* for *irt·tw nbt*, which Breasted following Erman[7] regards as an error of the engraver.

Gunn's translation[8] is a much better one:—*except a Negro who may come to traffic in Iḳen, or on public business. Everything* (i.e., any affairs) *that one may do is good* (*lawful*) *with them, but not permitting any boat of the Negroes to pass by*, but is not altogether satisfactory.

[1] *Dd* is passive *sḏm·f* used in a virtual relative clause, the antecedent being undefined. Had it been defined, the perf. pass. partic. *ḏdt* would have been substituted.

[2] *Grammar*, § 361, p. 279.

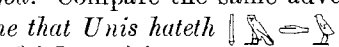
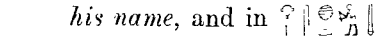
[3] *Literatur*, 129.

[4] Spiegelberg, *Der Sagenkreis des Königs Petubastis*, nos. 262, 286.

[5] *Aegyptische Inschriften aus den königl. Museen zu Berlin*, 255 f.

[6] *Ancient Records*, I, § 652. [7] *Ibid.*, footnote 2. [8] *Syntax*, 5 (20).

Complete sense is obtained if *nfr* is taken as an adverb and not as the old perfective[1], viz.:—*Save for a Nubian who may come to do traffic in Iḳen, or on an errand, any business that one may transact*[2] *lawfully with them, but without permitting a boat of the Nubians going north to pass Ḥeḥ, for ever.*

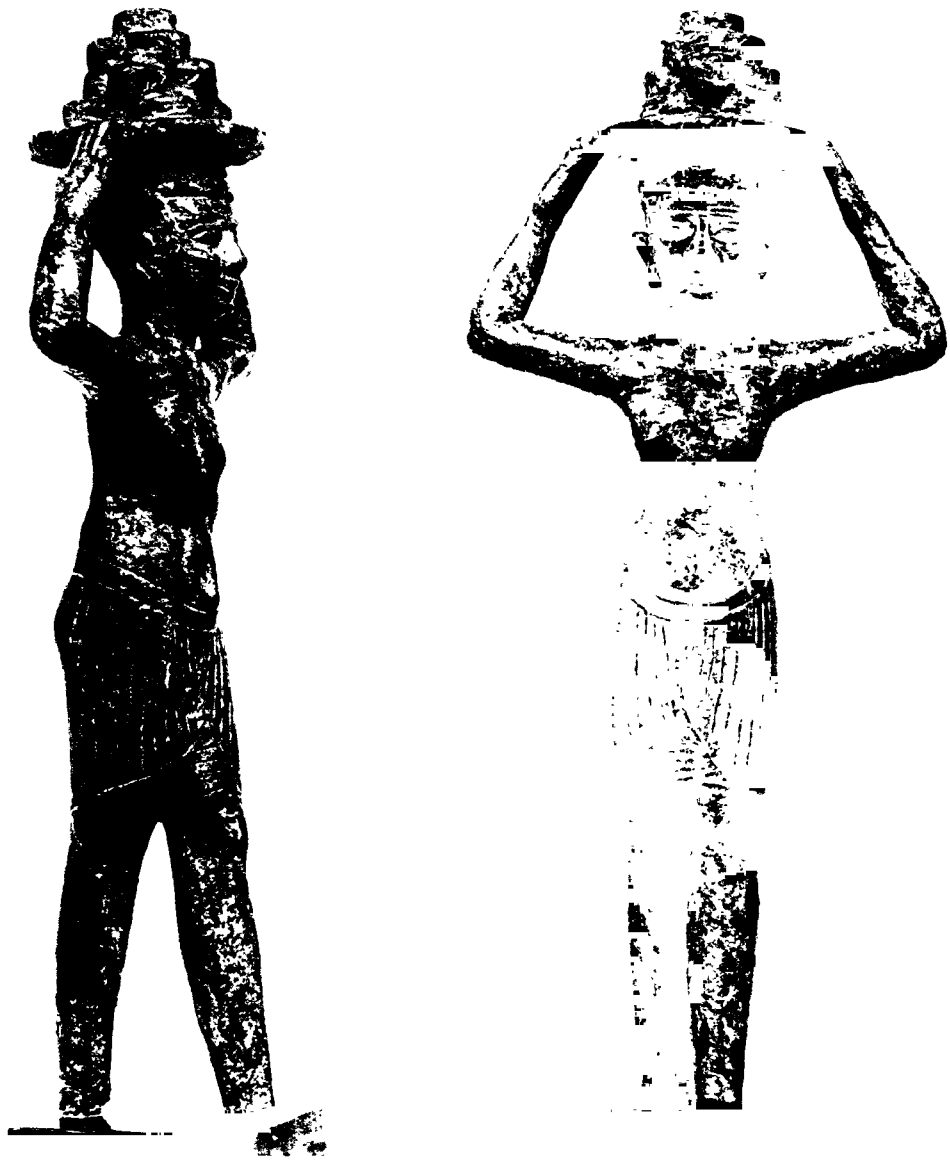
This adverbial use of *nfr* is also exemplified in one of the two stelae of Amenisenb in the Louvre (C 11, line 3)[3]:—*ir iꜣw·k nfr m tꜣ ḥt-nṯr nt pꜣik nṯr, Spend thine old age happily in the temple of thy god.* Compare the same adverbial use of *ḏw* in *Pyr.* § 16 a:—*O Osiris, take to thee every one that Unis hateth*  *that speaketh evilly in his name,* and in , *smiting him that speaketh evilly against him*[4].

[1] Grammatically *nfr* can be old perfective, for *ḫt*="something," "anything," can be masculine (Gardiner, *Grammar*, § 92, 2).

[2] *Irt(i)·tw ꜥbt* is in apposition to *swnt* and *wpt*.

[3] Samuel Sharpe, *Egyptian Inscriptions from the British Museum and other Sources*, II, Pl. 24; Sethe, *Lesestücke*, 76.

[4] Newberry, *Rekhmara*, VII, 14=Gardiner, *Zeitschr. f. ag. Spr.*, LX, 68.



Statuette in solid bronze representing a cake-carrier. *Scale c.* $\frac{9}{10}$.

# A BRONZE STATUE OF A CAKE-CARRIER

By WILHELM SPIEGELBERG

With Plates xviii and xix

Plate xviii shows a statuette cast in solid bronze in the possession of Mrs. Essil Rutherston, widow of the well-known connoisseur and collector Charles Rutherston, in London, which she has kindly allowed me to publish.

Figures of servants in bronze are exceedingly rare, and on this ground alone the statuette deserves to be known. It is admirably preserved—only the feet are missing—and is about 16 cm. high. It represents a youthful, slender man, clad only in the double kilt with centrepiece (*shento*), carrying on his closely-cropped head a tray with a tall pile of cakes. Professor Scharff informs me that the Berlin Museum possesses similar figures of cake-carriers cast in solid bronze (Inventory numbers 13126[1] and 22718[2]), and I have to thank him for the photographs here shown (Pl. xix, figs. 1, 2). These, however, are represented kneeling and are of much rougher work than the Rutherston statuette, which shows very firm and sure modelling. The body is slender and well proportioned, without, however, any indication of the muscles, rather drily and smoothly modelled in the routine manner which would suggest the Late Period, 8th to 4th centuries B.C., if one were prepared to venture oneself upon the difficult ground of the dating of Egyptian bronzes. The face is somewhat coarsely worked up. The figure shows none of that freshness which in spite of a certain constraint comes out in the bronzes of the Middle Kingdom[3], none of the soft elegance of the New Kingdom, but rather a sureness acquired in the school of tradition, which, while it produces a slightly jejune effect, yet wins admiration by the certainty of its forms. One more detail deserves mention, though I do not venture to make use of it for purposes of dating[4]: it is the treatment of the girdle from which the apron hangs. It differs from that of the Middle Kingdom bronzes mentioned above, producing a more naturalistic effect by its curved treatment of the lines.

As the statuette here shortly described merely adds one more to the number of bronzes which cannot be dated with certainty, I add here another which is in my own possession, which has the advantage of being safely datable by means of its inscription. It is a small praying figure[5] (Pl. xix, fig. 3), cast solid, which once sat in front of the figure of a deity[6], probably, to judge by the inscription, Neith, to which it was attached by a common base[7] which is now lost. The figure is clad in the simple kilt (without centrepiece), the goffering of which is indicated by parallel lines which stand out effectively

[1] 10 cm. high. [2] 7·5 cm. high.

[3] S. Fechheimer, *Kleinplastik*, Pls. 43–47. They are of more artistic importance than our statuette.

[4] The valuable remarks of Evers, *Staat aus dem Stein*, II, 34 ff., give no help in the case of our statuette.

[5] 6·5 cm. high. It is well preserved; only the tips of the fingers of the left hand are broken off.

[6] *Cf. e.g.* the groups given by Daressy, *Statues de divinités* (*Cat. gén.*, Cairo, Pl. 30 (38518) and Pl. 46 (38913).

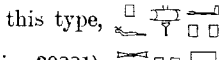
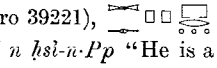
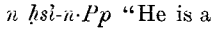
[7] The figure was let into this by means of a tang still preserved beneath the feet.

against the smooth surface of the surely and finely modelled body. The head, too, on which the line of the close cut hair is indicated only in front as far back as the position of the ears on either side, by an incised line which is not continued behind the ears on to the back of the head, betrays in its simple yet sure modelling, not devoid of a certain grace, the spirit of Saite art. Any doubt on this point is removed by the inscription on the back-pillar, which runs down the centre of the back, beginning at the shoulders and ending at the heels, and is cast in a single piece with the figure. The text runs:[1]



One would at first be inclined to read *Nit Psmṯk sꜣ ꜣhpp* or *Hꜣpp*, "Neith-Psammetichus, the son of *ꜣhpp* or *Hꜣpp*." But no personal name *Nit-Psmṯk* is known to me, and such a form would not be easy to explain. I therefore conjecture that after the name of the goddess Neith  is to be added, and that the translation is "May Neith preserve alive Psammetichus son of *ꜣhpp*."[2] In any case the name Psammetichus, as well as the style of the inscription, points to the Twenty-sixth (Saite) Dynasty.

[1] In the original the signs face the right.

[2] A formation from the name of the deified King Phiops (?) which occurs elsewhere in the formation of names of Saite date. Cf. *O.L.Z.*, V (1902), 44–5. I add, as further names of this type,  *Pꜣi-f ṯꜣw ʿ-wi Pp* "His breath is in the hands of Phiops" (*Ann. Serv.*, I, 285=Cairo 39221),  *Ts-Pp-prt* "Phiops brings forth (?) seed" (*op. cit.*, XXI, 33), and  *ʾr-f n ḫsi-n-Pp* "He is a distinguished one of Phiops" (Stele Frankfurt, *Sudd. Stelen*, III, No. 28, Pls. X, XI).



1



2



3

1 and 2. Figurines in solid bronze of cake-carriers Berlin Museum. (1) No. 13,126. (2) No. 22,718. *Both natural size.*

3. Figurine in solid bronze of Psammetichus. *Natural size.*

# EGYPT AND THE AEGEAN IN THE LATE BRONZE AGE

By J. D. S. PENDLEBURY

With Plates xx—xxiv.

The object of this paper is to lay stress upon the importance of the archaeological finds in Egypt, Crete and Greece, and to attempt, with their help, to construct a consistent picture of the relations between Egypt and the Aegean in the late Bronze Age, rather than to enter into a discussion of the influence exercised in the realm of art by one upon the other.

Egypt must be the basis of our enquiries, for Egypt alone possesses a chronology accurate enough to date events to a year, and Egypt alone possesses contemporary records which we can read. It is therefore chiefly from the Egyptian point of view that this paper is written. The evidence to be taken will be mainly composed of Egyptian objects found in the Aegean and of Aegean objects found in Egypt[1].

## Egypt and Crete.

With Crete, Egypt had always been in close relationship, a relationship which may involve some community of blood[2], certainly a relationship which stood the test of the troubled First and Second Intermediate Periods. Predynastic and Early Dynastic stone vases have come to light at Knossos, in contexts which, if not quite certain, clearly imply very early contact[3] (Pl. xxi); scarabs and button-seals of the First Intermediate Period and the Middle Kingdom were found in the Messarà plain and elsewhere[4]; a Middle Kingdom statuette and an alabastron-lid of King Khyan from Knossos also go to show that Egyptian imports were prized in the Middle Minoan Age[5]. If no Early Minoan work has yet appeared in Egypt[6], and if the Middle Minoan pottery is restricted to but two areas[7]

[1] I have collected all the former evidence in my *Aegyptiaca*, of which this paper is a direct outcome In any note on Egyptian objects found in the Aegean, the number in heavy type refers to that work, where the full basis of dating is given.

[2] See Evans, *Palace of Minos*, II, 1, p. 22 ff. and the references given there.

[3] **21–28**; Evans, *Palace of Minos*, I, 65, 86, figs. 28, 31, 32, 55*b*; II, 1, pp. 30, 31, 57, figs. 12, 27, 28.

[4] Agios Onouphrios, **1–3, 5**; Evans, *Cretan Pictographs* (Supplement), 105 ff.

Agia Triada, **6–8**; *Memorie del Reale Istituto Lombardo*, XXI, 248 ff., Pl. vii xi.

Marathokephalon, **48, 49**; Ἀρχαιολογικὸν Δελτίον, 1918 (Supplement), 21, fig. 7.

Mokhlos, **50, 51**; Seager, *Explorations in the Island of Mochlos*, 54; Evans, *P. of M.*, I, fig. 53.

Platanos, **54–56**; Xanthoudides, *The Vaulted Tombs of the Messarà*, 117, Pls. xiv, xv.

Dictaean Cave, **14**; Evans, *P. of M.*, I, 199.

Gournes, **16–18**; Ἀρχ. Δελτ., 1915, 60; 1918, 55, 56, Pl. IV, V.

[5] **29, 30**; Evans, *P. of M.*, I, 280, fig. 220; *op. cit.*, 419, fig. 304*b*.

[6] For the pottery found by Petrie in the Royal Tombs of the First Dynasty at Abydos and claimed by him as Aegean (Petrie, *Royal Tombs*, II, 46) see Frankfort, *Studies in the Early Pottery of the Near East*, I, 105–111, where it is proved to be of North Syrian origin.

[7] Abydos: Garstang, Liverpool *Annals*, 1913, 107, Pls. xiii, xiv.

Ḥaragah: Engelbach, *Haraqeh*, 10; Evans, *P. of M.*, II, 1, fig. 119.

Lâhûn: Petrie, *Kahun, Gurob and Hawara*, 21 ff., *Illahun, Kahun and Gurob*, 5, Pl. I.

(Pl. xxii), we must remember how much the deep deposit of the Delta still covers, and hope for the money to excavate the seaport through which the trade must have passed. It is possible however that we have in an Eleventh-Dynasty sepulchral relief an actual representation of Minoans bearing ingots of tin, a relief which, as Sir Arthur Evans says, strikingly anticipates the "Tribute-Bearers" of the tombs of Senmut and others[1].

But it is with the period after the resurrection of Egypt from the Hyksos oppression that we have here to deal. Professor E. Meyer has recently put forward a fascinating—if unprovable—theory that the success of the war of liberation was due to the alliance of the Theban kingdom with Crete, and that Queen Aahhotep actually married a Minoan prince, in whose dominions she gathered her armies and with whose help she finally drove the usurper from the land[2]. However that may be, there is no doubt that with the advent of the Eighteenth Dynasty the relations between the two countries became very close indeed.

Before we go on to give proofs of this, it will perhaps be as well to discuss the name by which the Egyptians called the Cretans. Are the Keftians of the monuments Cretans, or must they be relegated to Asia, while Crete is to be looked for among the "Peoples of the Isles"?

Wainwright has tried very ably to prove that the general identification of the Keftians with the Cretans can no longer be upheld[3]. Keftiu he identifies roughly with Cilicia: the Cretans, he maintains, are referred to among the Peoples of the Isles. His arguments are threefold, and are drawn (1) from the geographical lists; (2) from the types of objects borne by the tribute-bearers in the tombs of Senmut (where he admits it is Minoans—though here unnamed—who are depicted), Rekhmara (where the inscription states that both Keftians and the People of the Isles are present), Menkheperrasenb (where the Keftians come with Asiatics), and Amenemheb (where the Keftians are said to come alone)[4], to which we may now add the recently published tomb of Useramūn (where figures identical with those in the tomb of Senmut, *i.e.* admitted Minoans appear[5]); (3) from the costumes and general appearance of the tribute-bearers themselves.

From the geographical lists he argues that, since Keftiu appears four times grouped with the Asiatic countries of Naharin, Asy, Ḳadesh, Tunip, Kheta, Mannus (= Mallus in Cilicia), etc., it must be looked for among them. And since Kheta, Asy, Naharin and Mannus more or less enclose the district of Eastern Cilicia, it is only natural to look for Keftiu in the middle of these boundaries, "that is to say in the Gulf of Issus, and in close connexion with North Syria."

[1] Evans, *P. of M.*, II, 1, p. 176, fig. 90.

[2] Meyer, *Geschichte des Altertums*, II, 1, p. 55. His proofs however hardly seem adequate. The title "Princess of the Coast of the Hau-nebu" sounds suspiciously like "Count of the Saxon Shore," and may well have been a title created when the temporary fall of the Minoan thalassocracy after M.M. II left the sea open to raiders from the islands (Hau-nebu). Nor is there any good proof of the Queen's marriage to a Minoan. Such an event would surely be mentioned specifically.

[3] G. A. Wainwright, Liverpool *Annals*, VI, 24 ff. Although H. R. Hall has refuted him on general grounds (*Journal*, I, 201, n. 2, *Recueil Champollion*, 321), and more particularly in *Essays in Aegean Archaeology presented to Sir Arthur Evans*, 31 ff., Wainwright's theory has been largely ignored and has not elsewhere been paid the compliment of the detailed examination which it deserves.

[4] The testimony of this tomb will not be called on, since the figures do not even conform to Wainwright's Keftians. They are long-cloaked, long-bearded, yellow-skinned. They are in fact pure Syrians wrongly labelled.

[5] De G. Davies, *Bulletin* of the Metropolitan Museum, New York, 1926.

Unfortunately we cannot rely too much on such arguments. Wainwright himself a little earlier actually speaks of Crete in a way which could be taken to imply its close geographical connexion with Rhodes and the coast opposite![1]

But, supposing for the moment that Keftiu is Crete, how else could an Egyptian scribe refer to it? He has to give a list of foreign countries—of the particular ones which bring presents—and he does so. If one of these countries is a long way from the rest, he is not going to make special mention of the fact. Indeed it is more than doubtful whether he knew their geographical positions himself.

If any country of the West that could be identified with certainty, as—say—Italy or the Mainland of Greece, was specifically mentioned in the lists, and if in spite of that Keftiu was always grouped with Asiatic countries it would be different. But as a matter of fact the opposite is the case. In the tomb of Rekhmara, where the paintings show the nations of the world bringing tribute to the king's majesty, the inscription runs[2]: "Coming in peace of the Great Ones of Keftiu [and] the Isles in the midst of the sea." Here, then, in the only place where the isles are mentioned, Keftiu appears grouped with them and not with the nations of Asia[3]. Again: "the tribute of Punt, the tribute of Retenu, the tribute of Keftiu, together with the booty of all lands"[4] surely implies that the three countries named are typical of the South, North and West, in fact Africa, Asia and Europe.

Lastly Wainwright sees a connexion between Gebail (Byblos) and Keftiu in the following passage: "Presents which his Majesty (Tuthmosis III) received in Zahi (Phoenicia), consisting of cedar wood. Keftiu ships, Gebail ships, etc."[5], to which he adds a note, "Is it only a chance that Keftiu is once again mentioned in connection with Byblos and cedars, though here the places are not parallel to each other? The passage runs: 'Men do not sail northwards to Byblos to-day. What shall we do for cedars for our mummies, with the produce of which priests are buried, and with the oil of which [chiefs] are embalmed as far as Keftiu'?"[6]. But could anything more certainly separate Keftiu from Byblos? If Keftiu were in the Gulf of Issus, it would be as if someone in Devonshire wrote "Men do not drive northwards to London to-day. What shall we do for newspapers, with which the minds of [men] are lightened as far as Hampstead?"

In any case I do not see that on the strength of these inscriptions Keftiu can be geographically connected with Asia, still less with any particular part of Asia.

We now come to the objects carried by the envoys (Pl. xx). Wainwright has given an exhaustive analysis, and has attempted to obtain the purely Keftian objects by a process of elimination, and in the same way to determine the Island objects. His method however is open to some doubt. He first takes the offerings carried by obvious Syrians; he then subtracts these types from those brought by the Keftians and Islanders. The remainder he arbitrarily divides into Keftian and Island, giving the islands everything that looks Aegean. Now he claims these Islanders as Minoans, yet among their offerings he finds several things identical with those brought by the Syrians, which, as I have said, he arbitrarily attributes to Syria, declaring their presence among the Islanders to be due to confusion. It is difficult to see why the opposite should not be the case, viz. that the

[1] *Op. cit.*, 25.

[2] Sethe, *Urk.*, IV, 1098, 14.

[3] It is even not quite certain whether "the Isles in the Midst of the Sea" are not in apposition to Keftiu. It seems however safer to take them separately, though Wainwright cannot distinguish between an "Asiatic" Keftian and a "Minoan" Islander among the figures in the tomb.

[4] Sethe, *Urk.*, 1094, IV, 5 ff.

[5] Breasted, *Ancient Records*, II, 492.

[6] Gardiner, *Admonitions*, 32.

presence of these objects among the Syrians is due to confusion, and that they are exactly what they appear to be at first sight, Aegean, or in many cases (since he cannot distinguish an Islander from a Keftian by his dress) Minoan. If Wainwright could produce actual finds from Syria identical with, or even closely resembling these, he would have a stronger case. But merely to say that whatever a Syrian brings (however Minoan it looks) must be Syrian and nothing else, while the offerings of a Keftian or an Islander may come from anywhere, seems to me to be very false reasoning.

He is also gratified by the fact that the "purely Keftian" remainder obtained by this process of subtraction does not correspond to the offerings in Senmut. But that is not the way to look at it. The jug held in the right hand of the last figure in Senmut is identical with the jug held in the left hand of an ingot-bearer from Rekhmara; the two Vaphio cups (though they are absurdly enlarged) find an exact parallel in Menkheperrasenb; the bowl, though not identical, belongs to a class which is found both in Menkheperrasenb and Rekhmara; while the sword also finds a counterpart in Menkheperrasenb[1]. Thus we see that five out of the eight objects from Senmut are found elsewhere (and chiefly in the tomb of Menkheperrasenb, where Wainwright would say there are no Minoans since the Islands are not mentioned). Similarly with the tomb of Useramūn. The bull's-head rhyton is also found in Menkheperrasenb and in Rekhmara; the griffin's head in Rekhmara; the fine statuette of a bull is paralleled in Menkheperrasenb, while the jackal's-head rhyton is also found there as well as the Vaphio cup (see Plate xx for a comparison of types). Thus out of the sixteen objects brought by men who, though not labelled, are manifestly Cretans, ten are found in other tombs, six of them being brought by the unmixed Keftians of Menkheperrasenb. Now this is a very high proportion when we think of the extraordinary diversity of objects which the Cretans might have brought.

This being so we can safely and naturally recognize Minoan workmanship in the bull's-head, lion's-head, and griffin's-head rhytons which appear in the tombs, while fully admitting the possibility of such Minoan works of art being brought and offered by Syrians from Ḳadesh, Retenu or Naharin[2]. The bull's-head rhytons which form part of the Keftian offerings in Rekhmara and Menkheperrasenb are paralleled not only by one in Useramūn, but also by finds in the Little Palace at Knossos[3] and the Fourth Shaft Grave at Mycenae[4]. The lion's-head rhyton from Rekhmara recalls that from Knossos[5]. The griffin's-head rhyton is found not only in Rekhmara but also in Useramūn[6], while the jackal's head from Menkheperrasenb is also paralleled there, and by an example in the Brussels Museum of a dog's-head rhyton[7].

The great ingots of metal perhaps cannot be taken as definite evidence, because they

[1] The original drawing of the sword (*B.S.A.*, XVI, Pl. xiv) shows definitely that it had no midrib and is therefore identical with the example from Menkheperrasenb. Wainwright, on the authority of Müller, who saw the paintings many years later, has given it a midrib and so (rightly) compares it with Aegean examples of which one is found in Rekhmara; see Liverpool *Annals*, VI, 42.

[2] *Cf.* Hall, *B.S.A.*, VIII, 174. See Plate xx for the following paragraphs.

[3] Compare Wainwright, N. 47, 71, with *P. of M.*, II, 2, 530 ff., fig. 330.

[4] Karo, *Jahrbuch des Deutschen Archaologischen Instituts*, 1911, 249, and for an example "in the flat," *cf.* Pl. i, which is a sketch of a fresco from Tiryns.

[5] Compare Wainwright, N. 45, N. 46, with *P. of M.*, II, 2, fig. 542.

[6] Compare Wainwright, N. 48, with *P. of M.*, II, 2, fig. 337.

[7] Compare Wainwright, N. 72, with *P.* of *M.*, II, 2, fig. 471, and de Mot, *Revue archéologique*, 1904[2], 217.




Above: Minoan objects from Senmut (S) and Useramūn (U) compared with Keftian objects from Rekhmara (R) and Menkheperrasenb (M).

Below: Comparison of Minoan and Keftian objects.

appear also in the Syrian tribute and elsewhere[1]; but this peculiar shape, representing, as Mr. Seltman has shown[2], the hide of a bull, has been found in such quantities in Crete that at least it cannot be used to prove the bearers Asiatics[3]. It was the normal Minoan ingot.

The "Vaphio" cup carried by the Keftian in Menkheperrasenb is purely Aegean[4].

The statuette of a bull from the same tomb approximates far more to the spirited Minoan bulls than to the listless, lifeless animals from Cappadocia which Wainwright gives, while a very similar statuette is held by a Cretan in Useramūn[5].

The tall fluted vase with two handles from Rekhmara is identical with one which Wainwright himself admits to be of Aegean origin[6].

The vase with the goat's head upon it has no exact counterpart in Crete, but we must remember how little metal work survives; and, where in pottery we have such a parallel as the example from Palaikastro, there is no inherent improbability in its being Cretan[7]. There is of course another possibility, and that is that the goat's head is merely a lid or stopper, in which case it can be compared to a vase from Menkheperrasenb, where a bull's head is so used, whose horns and general appearance are so Minoan that it can hardly be dissociated from the bull's-head rhytons[8].

The fillers also find their natural home in Crete, and, in spite of one of them being carried by a Syrian, we can deny them, in the absence of tangible proof from excavations, all connexion with Asia, while the occurrence of hitherto unknown patterns, handles and shapes among them can be accounted for by the fact that no metal filler has yet been found in Crete[9].

The roll of stuff from the tomb of Menkheperrasenb is surely a natural offering from any country, and need not be called upon to prove an Asiatic origin for its bearer[10], particularly since in his other hand he carries a bull's-head rhyton, which, as we have seen, is purely Minoan.

The same may be said for the beads, which after all are such small objects that the artist as a matter of fact gave them completely Egyptian shapes[11].

The ivory tusks in Rekhmara[12], which are used as a proof of Asiatic origin, are, as Wainwright has perhaps not noticed, carried by a man who holds in his other hand a jug which is admittedly an "Island" type[13]. It would surely be carrying too far the

[1] Wainwright quotes Peet, *Stone and Bronze Ages in Italy*, 281, but the examples given there are almost entirely from the Aegean. Wainwright, Q. 52, No. 107, is simply several ingots together.

[2] Seltman, *Athens, its History and its Coinage*, 4.

[3] In fact one of the envoys in Rekhmara carries an "Island" jug in his other hand.

[4] Compare Wainwright, 91, with Schliemann, *Mycenae* (English), fig. 317; *P. of M.*, II, 2, fig. 337, and with Wainwright, 101, 102.

[5] Hall, in *Essays presented to Sir A. Evans*, 37, 38; compare Wainwright, 85, with *P. of M.*, II, 2, fig. 471, pp. 649 ff.

[6] Compare Wainwright, 90, with Wainwright, 92.

[7] Compare Wainwright, 79, with *B.S.A.*, X, 206. A Syrian however appears to be carrying one, *cf.* Hall, *Ancient History of the Near East*, Pl. XV 1, but see Hall, *B.S.A.*, VIII, 174.

[8] Wainwright, D. 58.

[9] Compare Wainwright, G. 14, 41, 42, 66, 67 and 83, with *P. of M.*, II, 2, Supplementary Plate xxiv.

[10] Wainwright, M. 70.

[11] Wainwright, 86, 105, but compare Brunton and Engelbach, *Gurob*, Pl. xliv, No. 70, G. Many even better examples come from 'Amarnah, where the body of the bead is blue and the bottom yellow, a change of colour perhaps representing lapis lazuli and gold, which is indicated here.

[12] Wainwright, O. 50, but cf. *P. of M.*, II, 2, p. 741 ff.

[13] Wainwright, 94.

principle of not letting the right hand know what the left hand does to give two different nationalities to the two sides of the body. The other so-called tusk from Menkheperrasenb is so small that I feel it may well be intended for a silver throwing-stick, and as such it is evidence neither for nor against an Aegean origin[1].

The swords again prove nothing. Wainwright, as I said above, attributes to the Senmut sword a midrib, which was probably not there[2]. It is therefore identical with one from Menkheperrasenb[3], while the sword from Rekhmara possesses a midrib, which is an admitted characteristic of Aegean weapons[4]. All three however are slashing swords, and as such distinct from the Minoan rapier[5]. They therefore prove nothing either way.

It seems then that in these representations we have some confusion of types, but, whereas among the Syrian envoys we find much that is, on the evidence of archaeological finds, demonstrably Minoan, among the Keftian and Island envoys there is nothing which on similar evidence can be called Syrian or indeed Asiatic[6]; and until fresh proofs, furnished by actual excavation, turn up, I think we are justified, wherever a type foreign to its bearer is shown, in postulating the natural confusion of an Egyptian artist faced with the task of portraying a mixed crowd of foreigners[7].

Wainwright next turns to the costume. The unnamed people of Senmut he admits are as Minoan in figure and dress as can be reasonably expected, and the same may be said of the figures from Useramūn.

With regard to the Keftians of Rekhmara, Menkheperrasenb, and Amenemheb[8] however, he sums up his judgment as follows: "While the kilt seems to contain the same original idea as does that of the cup-bearer in Crete, in the working out of that idea very considerable differences of detail appear, just as would naturally happen supposing the two to be natural developments of that idea[9]. It is also allied to a Syro-Asia Minor type.

"The boots and curls, though like those of Crete, can be found nearer Cilicia than that island, and in the same Asia Minor area as the kilt. The beard, while known in Greece, does not appear in Crete till later, and the locks seem to be independent of all allied fashions."

Wainwright again demands of his artist almost photographic reliability in detail, though he allows confusion in the tomb of Rekhmara, where codpieces have been added to all and sundry, a confusion, he says, due to the presence of the codpiece among the People of the Isles (his Cretans), whose presence is expressly stated in this tomb alone.

[1] Wainwright, O. 73; cf. *P. of M.*, II, 1, p. 178, note 2.

[2] Wainwright, 100, but see Wainwright, p. 42, note 3, and the original drawing reproduced in *B.S.A.*, XVI, Pl. xiv.

[3] Wainwright, L. 69. [4] Wainwright, 96. *Cf.* Evans, *Prehistoric Tombs of Knossos*, 56 ff.

[5] *Cf.* Hall, *B.S.A.*, XVI, 256; though earlier broadswords have been found at Mallia (date M.M. I), *Fouilles de Mallia*, I, Pl. 1.

[6] Many of the great bowls appear to show more Egyptian influence than anything else (see Hall, *Essays presented to Sir Arthur Evans*, 35, 36); one or two of them are given a spiral decoration to make them look Aegean. The lotus vase (Wainwright, H. 68) finds its nearest parallel in similar pottery forms from Tell el-'Amarnah. His type F, as he says, recalls an Egyptian *hes*-vase, while E. 62, 63, 64 all closely resemble an Egyptian alabaster form from the Royal Tomb at Isopata. *Cf.* Evans, *Prehistoric Tombs of Knossos*, fig. 125, S. 2.

[7] For all the comparisons made above see Pl. xx. [8] See above p. 76, note 4.

[9] May it not be equally due to the difference between a native Cretan artist and a foreign Egyptian artist copying the same thing? For instance, the codpiece is misunderstood even in Senmut and Useramūn. *P. of M.*, II, 2, p. 737.

Unfortunately on this theory the Keftians have revenged themselves by inflicting their kilt upon the Islanders, so that the two nations become inseparable. They are in fact so alike in looks and in the things they carry that if they exchanged clothes no one would know the difference!

His remarks about the kilt, however, are nevertheless to be considered. He points out that the kilts of the Keftians are long, while the loincloths of the Cretans are short; that while in the latter the patterns are uniform all over, in the former the patterns are in bands, each kilt containing several patterns. He says that this shape of kilt and this type of pattern in bands appear in Asia Minor and North Syria[1], and that the tassels find their nearest parallel in the figures from the Warrior Vase and among the Sea Raiders of Ramesses III's time. This is certainly a formidable array of arguments. But longer kilts appear at Knossos in the Procession Fresco[2], and it must be remembered that what we see figured there and in similar scenes is the "state costume" which perhaps an artist who had only seen them in "travelling kit" might not know. In any case the principle of both the Cretan and the Keftian kilts is the same, and a parallel has yet to be found in Asia for the combination of thick belt, kilt and bare upper body. The Keftian in the tomb of Puemra has a patterned border to his plain kilt, as have the Cretans of Senmut and Useramūn. The Minoan kilt is always bordered with a band of a different pattern from the rest, and is girt with a belt of a different pattern again, as with the Keftians. The tassels in the tomb of Rekhmara may find their nearest parallel in the costume of the Warrior Vase and the Sea Raiders, but that looks very much as if those who wear them are Islanders *from the rest of the Aegean*, i.e., part of the Minoan Empire. Lastly, it must again be enquired why the Islanders are indistinguishable from the Keftians if they do not form part of the same culture circle.

The question of the sandals is made more difficult by Wainwright's acceptance of his own theory and his dismissal of Cretan parallels as similar but unnecessary, since he can produce examples from "nearer home." One of his examples[3] from Ivriz on the Cilician border has no particular resemblance and suffers from the further disadvantage of being later in date, while his illustration of a boot worn by a Syrian in the tomb of Amuneṣeḥ shows a far simpler method of lacing than anything employed by the Keftians[4]. On the other hand we have only to compare the sandals worn by the Keftians of Rekhmara with the foot of an ivory figurine from Knossos to see that they are identical[5].

With regard to the hair, Wainwright admits that in Rekhmara, where the Keftians are—conveniently—mixed up with the People of the Isles, their locks are shown just like the long wavy locks so well known in Crete[6]; in Amenemheb they are naturally the curled locks of the Syrians, for as was said above they are Syrians wrongly labelled; in Menkheperrasenb, he says, the figures show a combination of the two fashions, a row of curled locks like the Cretans, but much shorter, falling only to the shoulder[7]. Shorter

[1] Wainwright, 65, Pl. xv; his examples however can hardly be called kilts. They are more long tunics and never occur with a bare upper body. The pattern in bands which he shows is on a long robe.

[2] *P. of M.*, II, 2, fig. 472. And a longer development of the kilt was often worn (Hall, *Civilization of Greece in the Bronze Age*, fig. 239).

[3] Wainwright, Pl. xv, No. 23.

[4] *Ibid.* No. 24. It is not lacing at all, but one broad strap which passes over the instep.

[5] The two are placed side by side for comparison in *P. of M.*, II, 2, p. 727, fig. 455.

[6] May not the apparent horn, rising above the ear of one of the figures, be rather the wing of a bird worn as a plume? *Cf.* the "Captain of the Blacks" Fresco, *P. of M.*, II, 2, Pl. xiii.

[7] This is not quite accurate; they come down well over the shoulder and in one case fall nearly to the elbow.

locks or, apparently, pigtails however are seen in a fragment of a steatite rhyton from Knossos[1]. For the curls there are many Minoan parallels, of which I need only mention the young prince of the Chieftain Vase from Agia Triada, to oppose the one Cilician example of much later date from Mallus which is put forward[2]. The hair of the Keftian from Puemra is even more characteristically Minoan, and a glance comparing the coiffures of the tribute-bearers from all these tombs will show how they are in all essentials the same, and how completely they differed from those of any Syrian, and of any Cilician, so far as we know[3].

Now the question of beards would be more serious if we were not in the happy position of being able to dismiss it. The "Chief of the Keftians" in Menkheperrasenb is bearded, but he is also yellow-skinned and Semitic in profile. He is obviously wrongly labelled. It is also by the same stupid blunder that the people in the tomb of Amenemheb have been labelled Keftians at all[4].

Finally the physiognomy of the Keftians is as distinct as it can well be from that of any Asiatic nation that we know of. Their straight noses[5], the deep red colour of their skins, their clean-shaven faces, all mark them off from the aquiline, yellow-skinned, bearded Semites, and from the high-beaked Hittites. The Egyptian had a wonderful knack of giving the essentials of a nation, he was a true caricaturist, and in these tombs he has given us a remarkable series of pictures of the straight, slender Minoan envoys, though he may not have worked from a photograph or even a model.

We can therefore answer the objections to the identification of the Keftians with the Minoans as follows:

1. Keftiu is always spoken of as a western land, a perfectly good description of Crete. So far from being connected with Asia as against the Aegean, it is always, wherever distinction is desired, contrasted with Asia, and in one case definitely mentioned in connexion with the Islands.

2. The offerings brought by the Keftians contain a large proportion of Minoan objects and many that may well be Minoan. The doubtful cases are usually bowls, which are quite indeterminate, and a few vases which display Egyptian influence. In no case is anything shown which can be proved *by the results of excavation* to be Syrian.

3. The costume and general appearance of the Keftians, apart from the kilt, is Minoan and finds no contemporary parallel in Asia. The kilt may be a fashion which we do not know, but it is certainly not Asiatic. The Keftians are nowhere distinguished from the Islanders, who may have formed part of the Minoan Empire.

4. We cannot expect photographic accuracy in an artist who did not copy from a model. All we can expect is a general impression of Minoans, and that is what we get. We are then justified in regarding the Keftians as representatives of Minoan Crete and—especially when accompanied by the Men of the Isles—of her empire[6].

[1] *P. of M.*, II, 2, fig. 486. *Cf.* Hall, *Ev. Gr. Bronze Age*, 121, n.

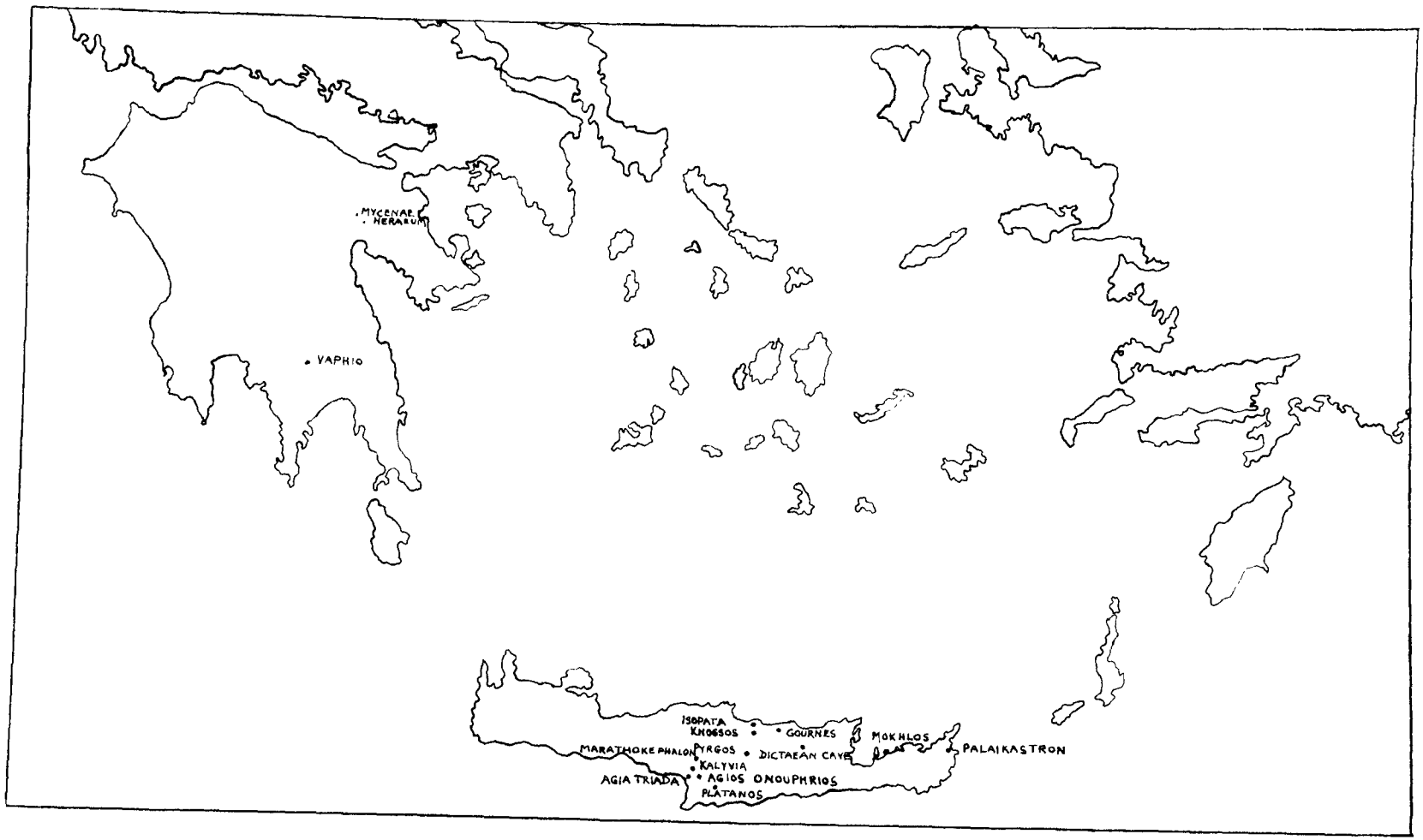
[2] We cannot deny connexion between Crete and Mallus (*P. of M.*, II, 2, p. 656), but that is no reason for putting Keftiu there. *Cf.* also Hall, *op. cit.*, 293.

[3] *Cf.* Hall, *Recueil Champollion*, 322.

[4] See above, p. 76, note 4.

[5] The Keftian from the tomb of Puemra has an aquiline nose. Is this a personal peculiarity, a slip of the artist's hand or a confusion with the Semites around him? The colour of his skin however is a true "Keftian" red. The same is true of one of the Keftians in Rekhmara; *cf.* Hall, *B.S.A.*, VIII, 164.

[6] Keftiu in fact could be used like "Rome" either in the narrow or broader meaning, *i.e.* either geographically or politically, *cf.* Hall, *Recueil Champollion*, 323.




THE AEGEAN,
showing the distribution of Egyptian objects before the fall of Crete.

Plate XXI.

It is now time to turn to the objects brought to light by excavation, which finally prove the close connection between Keftiu and Egypt.

In Crete the following works all date from the Early or Middle Eighteenth Dynasty or are found with L.M. (Late Minoan) I and II pottery[1] (Pl. xxi).

1. From the palace of Agia Triada comes a typical vase of banded alabaster, found with L.M. I pottery and two other vases in Cretan stone imitating well-known Eighteenth-Dynasty shapes. From a chamber-tomb close by comes a steatite seal of Queen Tiyi, found with L.M. I*b* and a little L.M. II pottery[2].

2. From the tombs of Kalyvia, the necropolis of Phaestos, come two similar vases of alabaster. Unfortunately the chamber-tomb in which they were found was re-used in the immediately succeeding period, but the position of the vases seems to point to their being part of the first interment, which took place in L.M. I[3].

3. The Palace at Knossos has nothing of this period to show us, and we must turn to its necropolis and to the great Royal Tomb at Isopata, where were discovered ten alabaster vases of types ranging from the Hyksos Period to the middle of the Eighteenth Dynasty, as well as beads, two ape-amulets and a frog-amulet, all of which can be paralleled by finds in mid-Eighteenth-Dynasty contexts in Egypt. These objects, which formed part of the original funerary furniture of the tomb, must have been deposited at the end of L.M. I*b* or at the beginning of L.M. II[4].

4. At Pyrgos, on the great Minoan road which runs from sea to sea, was found a L.M. I*a* larnax, which contained amethyst and carnelian beads, of shapes which, although originating in the Hyksos Period, continue down into the first half of the Eighteenth Dynasty[5].

5. Palaïkastron on the east coast of the island produced two Egyptian figurines of ivory which, though found with L.M. I and II pottery, must probably be dated to the Middle Kingdom. Whether they are survivals from the importations of a previous period or were bought by some Keftian as "genuine antiques" it is of course impossible to say[6].

6. At Agios Onouphrios near Phaestos, there came to light a scarab of the mid-Eighteenth Dynasty. Its context however is very corrupt, including Middle Kingdom scarabs and E.M. pottery[7].

7. From some unknown provenance comes an early Eighteenth-Dynasty scarab now in the Candia Museum[8].

The following vases from Egypt can all be dated to L.M. I (Pl. xxii).

1. At Anibe in Nubia a L.M. I*a* squat bowl was found in an early Eighteenth-Dynasty grave[9].

2. From Armant, the ancient Hermonthis near Luxor, came a similar squat bowl in the British Museum which can be dated slightly later to L.M. I*b*. It has however unfortunately no context[10].

[1] As was said above, p. 75, note 1, the numbers in heavy type before the references refer to my *Aegyptiaca*, where the basis for dating and the museum numbers are given. Wherever details in this paper differ from those given in *Aegyptiaca* this is to be considered the revised version.

[2] **9, 10**; *Monumenti Antichi*, XIII, 62; XIV, 735.

[3] **19, 20**; *Mon. Ant.*, XIV, 554.

[4] **31, 45**; Evans, *Prehistoric Tombs*, 146 ff.

[5] **57**; *P. of M.*, II, 1, p. 75.

[6] **52, 53**; *B.S.A.* Supplement, I (1923), *Unpublished objects from Palaikastro*, 125, Pl. xxvii; Hall, *Civilization of Greece in the Bronze Age*, 273, n.

[7] **4**; Evans, *Cretan Pictographs* (Supplement), 105 ff.

[8] **68**; Candia Museum. Case 11, No. 52.

[9] *Pennsylvania Museum Journal*, I, 47, fig. 31.

[10] Brit. Mus. A. 651; Perrot-Chipiez, *Histoire de l'art*, VI, 925, fig. 485; Forsdyke, *Cat. Vases*, Pl. viii; Hall, *Aeg. Archaeology*, Pl. xxi, *et passim*.

3. From Gurob came another L.M. I*a* squat bowl from an early Eighteenth-Dynasty grave[1].

4. From the grave of Maket at Lâhûn, which can be dated to the reign of Tuthmosis III, comes an L.M. I*b* squat bowl.[2]

5. From another tomb of the reign of Tuthmosis III at Naḳâdah comes a stirrup vase, which, since it was obviously not intrusive and is said by Petrie to be of a very early type, may well be of this style[3].

6. From a tomb of similar date at Saḳḳârah come a L.M. I*b* squat bowl and a shallow cup of the same date[4].

7. From some unknown provenance come two L.M. I*a* squat bowls in the Cairo Museum and the magnificent L.M. I*b* oenochoe now at Marseilles[5].

No object which can be dated to L.M. II has as yet appeared in Egypt[6]. It is perhaps possible to find a reason for this. Somewhere at the end of the 15th century B.C. Crete suffered an overwhelming catastrophe, and it is possible, if not highly probable, that this catastrophe overtook most of the island before it had reached the L.M. II stage of culture. L.M. II was in fact a true Palace Style, originating at Knossos and at once taken up by the rich inhabitants of Phaestos and Agia Triada, but only filtering through gradually to the provinces. Thus while Knossos goes up in flames at the end of its L.M. II period[7], as do Phaestos and Agia Triada[8], this stage of development has not been reached by Gournia[9] and Mokhlos[10] when the disaster overtakes them. Pseira indeed has had time to import a few vases of the new style but she is destroyed before that style becomes general[11]. Palaikastro has begun actually to enter the period proper[12], but only a few houses, and those the richest, have any L.M. II stratum, and the fact that the destruction of the whole town was obviously simultaneous clearly shows, when taken in conjunction with a similar phenomenon at Zakro[13], that L.M. I*b* in the provinces is contemporary with L.M. II in the great centres.

Although, then, there is no L.M. II pottery from Egypt, yet we need not assume that intercourse between the two countries ceased any great length of time before the catastrophe took place, and we can also see that this catastrophe must have been complete and must have wrecked the whole island simultaneously. Until then, however, Egypt and Crete had the closest relations.

But with regard to L.M. III there is a very different tale to tell. No L.M. III pottery has been found in Egypt[14], and in Crete there are but two Egyptian objects in a context of this date (Pl. xxiii).

[1] Brunton and Engelbach, *Gurob*, Pl. xiii. [2] Petrie, *Illahun, Kahun and Gurob*, Pl. xxvi.

[3] Petrie and Quibell, *Naqada and Ballas*, 69. The vase is unfortunately not illustrated. I do not know where it is.

[4] Firth and Gunn, *Saqqara*, Pl. xlii. I was at first inclined to see a mainland type in the shallow cup on account of its high handle. The pattern within however is purely Minoan.

[5] Cairo Museum, 26125, 26126; Marseilles Museum, 1043. *Cf.* also *P. of M.*, II, 2, p. 598, fig. 312.

[6] *P. of M.*, II, 2, p. 538. [7] Evans, *B.S.A.*, VII, 92.

[8] Halbherr, *Rendiconti dell'Accademia dei Lincei*, 1905, 375. [9] Hawes, *Gournia*, 21, 43.

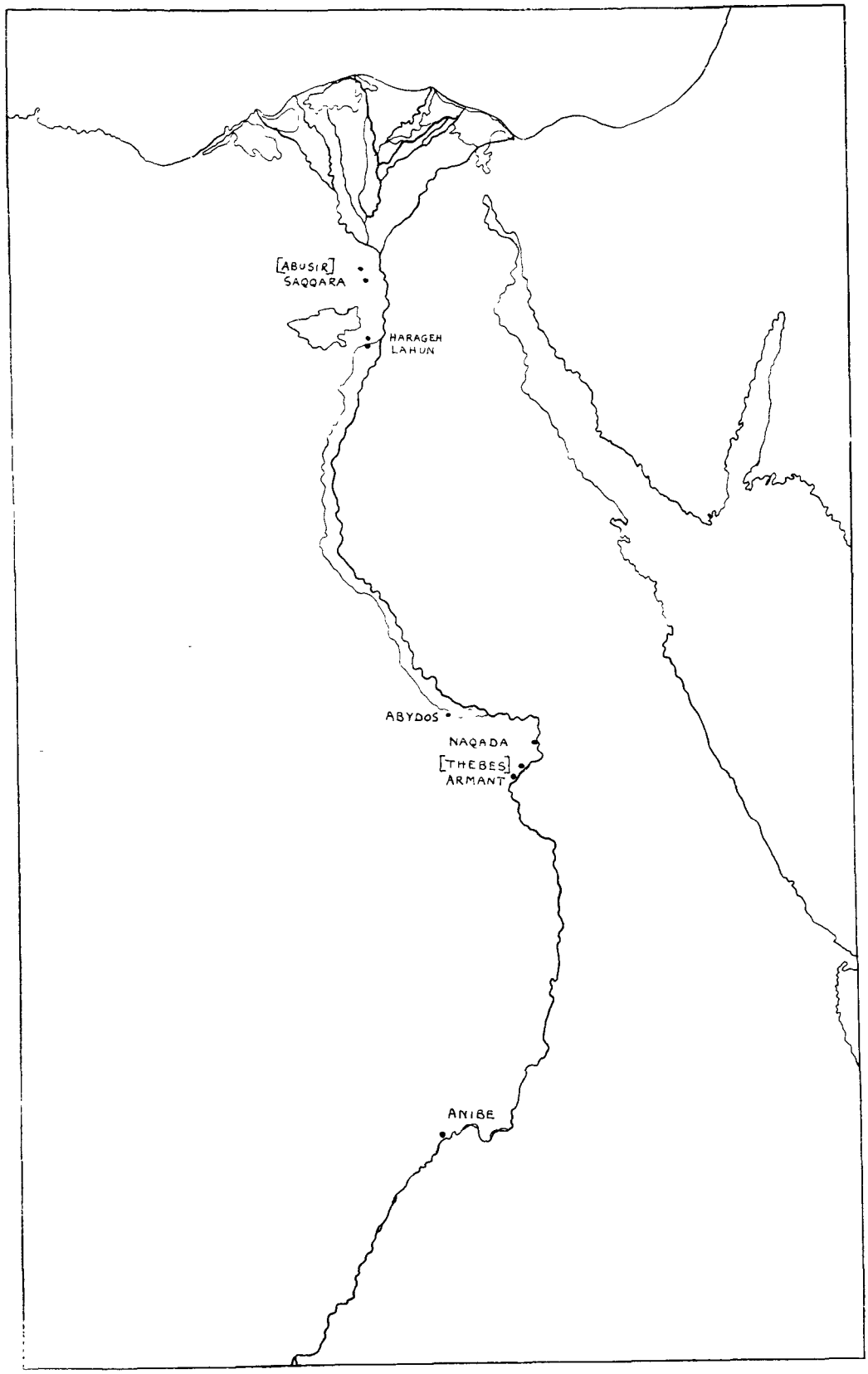
[10] Seager, *A.J.A.*, XIII, 285 ff.

[11] Seager, *Excavations on the Island of Pseira*, 10 ff.

[12] Bosanquet, *B.S.A.*, IX, 281.

[13] *Ibid.* A further proof perhaps is that at the little village of Platy up in the Lasithi Plain, where there was no evidence of a disaster, L.M. III followed straight on to L.M. I; see *B.S.A.*, XX.

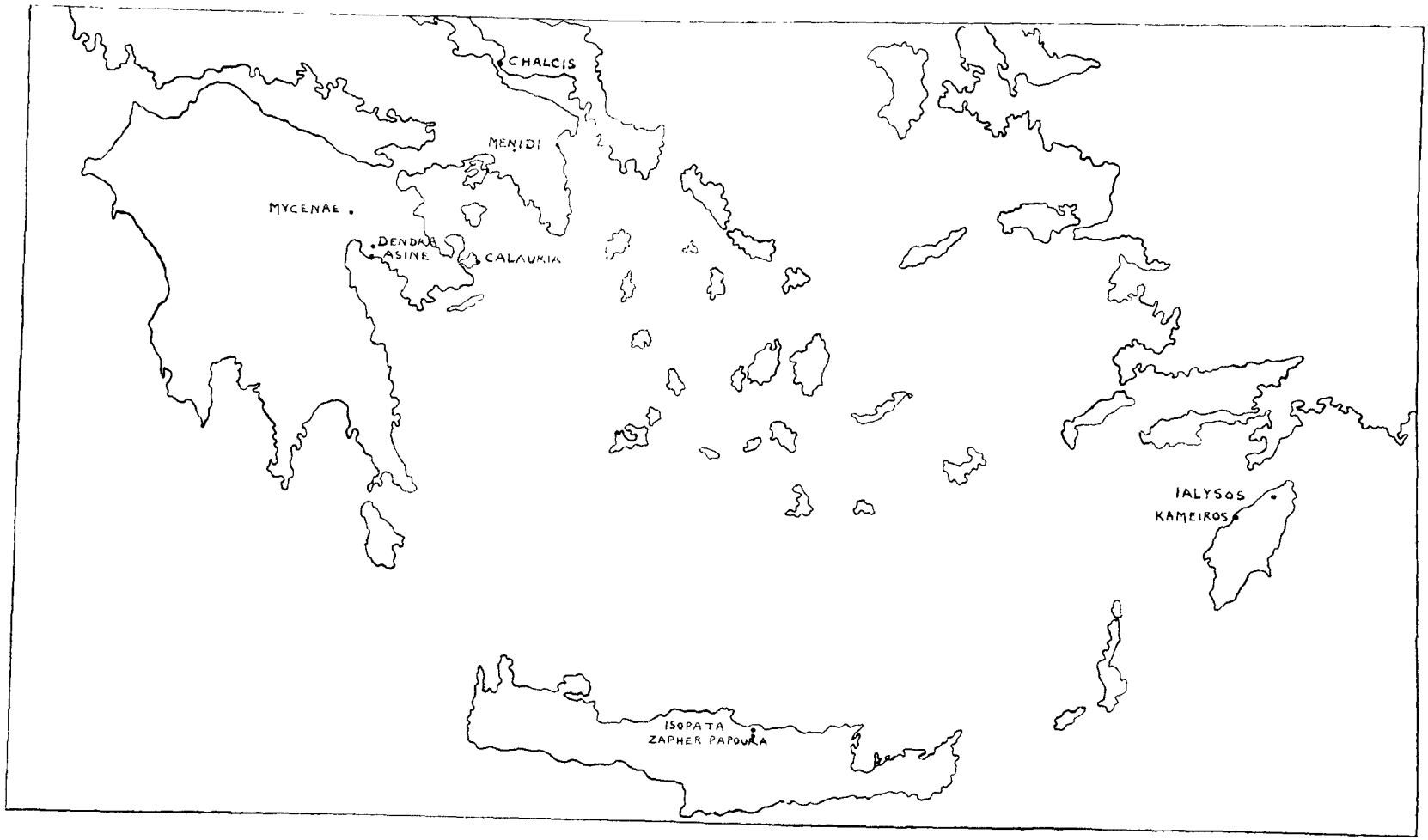
[14] I use L.M. III (Late Minoan III) to designate Cretan pottery only; for the "Mycenaean" pottery from the islands and the Greek mainland I use the term L.H. III (Late Helladic III).




EGYPT.

Distribution of Aegean Pottery before the fall of Crete.

*(Names in brackets show sites where Early and Middle Mycenaean* [*L. H. I—II*] *pottery has been found.)*




THE AEGEAN,
showing the distribution of Egyptian objects after the fall of Crete.

1. An alabaster vase from a tomb near Isopata[1].
2. A late Eighteenth-Dynasty scarab from a tomb at Zapher Papoura[2].

The Keftians no longer bring their presents, and the Amarna letters make no mention of them[3]. It therefore seems as if this strong connexion and relationship, which had lasted from the earliest times and which had become so close during the early and middle Eighteenth Dynasty, was completely broken by the disaster which destroyed the towns of Crete. We are probably justified in putting this break between the two countries somewhere in the reign of Amenophis III, since it is in his reign that the last mention of Keftiu occurs[4], and since the scarab of his queen Tiyi from Agia Triada is the latest datable Egyptian object found in Crete before the catastrophe.

### Egypt and the Rest of the Aegean.

We now come to the relations of Egypt with the rest of the Aegean, particularly with the mainland of Greece.

There can be no doubt in this case what the Egyptians called the inhabitants of the Aegean. They are the "People of the Isles in the midst of the Sea." It is not surprising that this term should apply to the mainland as well as to the islands, for not only is the mainland of Greece insular in character, but also when the term was originally coined it is very doubtful whether the Egyptians knew anything more of the inhabitants than that they came from the midst of the sea—and were therefore, probably, all from some island or other—and that they were all subject to Crete.

The references to them on the part of the Egyptians up to the middle of the Eighteenth Dynasty are as follows:

1. The gods of Egypt and the Isles of the Sea[5].
2. The Isles of the Great Circle. (Tuthmosis I)[6].
3. Causing thee to smite the dwellers in the Isles in the midst of the Sea. (Tuthmosis III)[7].
4. Filling the heart of the king in all foreign lands [and] the Isles in the midst of the Sea. (Tuthmosis III)[8].
5. Coming in peace of the Great Ones of Keftiu [and] the Isles in the midst of the Sea. (Tomb of Rekhmara)[9].

These references are scanty and vague enough, but after the reign of Amenophis III —in the Amarna letters in fact—we begin to hear of the actual tribes who were probably included in the Men of the Isles and are generally known nowadays as the "Peoples of the Sea." Akhenaten mentions them generally and they seem to increase in importance until we get the whole list of them in the accounts of the battles of Merenptah and Ramesses III—Akaiwasha and Danauna, Zakaray and Shakalsha, Shardana and Lukki and Pulesatha[10], showing that the Isles included some of the coast lands of Asia Minor, while a body of Danauna had appeared in Syria as early as the Amarna letters[11].

[1] **46**; Candia Museum. Case 26, No. 1583. [2] **47**; Evans, *Prehistoric Tombs of Knossos*, 89.

[3] We can hardly count the inscription of Ramesses II (Mariette, *Abydos*, II, Pl. 2) as he notoriously copies his predecessors' lists. In this inscription in fact he also mentions Naharin, which had ceased to exist. Nor can two late Nineteenth-Dynasty scrawls prolong the life of the Keftians. *Cf.* Hall, *C.B.G.A.*, 207.

[4] L., *D.*, III, 88*a*. [5] Gardiner, *Die Erzählung des Sinuhe*, Taf. 12*a*, line 211, pp. 12, 13.

[6] Breasted, *Ancient Records*, II, 73. [7] *Op. cit.*, II, 660.

[8] Birch, *Mémoires de la Société Impériale des Antiquaires de France*, XXIV, 1887–8, 4.

[9] Sethe, *Urk.*, IV, 1098, 14. [10] See Hall, *B.S.A.*, VIII, 175 ff.

[11] Letter 151, in Winckler's edition.

The finds tell the same story. No Egyptian object has been found in a Middle Helladic or in a Middle Cycladic context. No M.H. or M.C. object has been found in Egypt[1]. Pottery of the succeeding period, Early Mycenaean or L.H. I, has only appeared once in Egypt and then in a very doubtful context—the "pits of the dogs" at Abûṣîr[2]. Pottery of the Middle Mycenaean or L.H. II period is not found in Egypt, unless we accept one very doubtful example which is well out of its context in the tomb of Menthuherkhepshef of the Nineteenth Dynasty at Thebes[3] (Pl. xxii).

1. From Mycenae in the Early Mycenaean period come two objects which may be Egyptian, though I can find no parallel to them in Egypt. Both are faience vases from the shaft-graves, and on one is the earliest representation of a Shardana warrior[4]. From a tomb of this period or early in the next comes a fragment of an Old Kingdom stone bowl[5]. From another chamber-tomb dated to Middle Mycenaean times comes a mid-Eighteenth-Dynasty alabaster vase, which may well have been brought over from Crete, since it was found with another vase of Egyptian alabaster but Minoan workmanship and a L.M. II vase of the true Palace Style[6]. We must also add, though this was quite unstratified, the little faience ape, bearing a cartouche of Amenophis II, which was found somewhere on the Acropolis[7].

2. From the Argive Heraeum comes an early Eighteenth-Dynasty scarab found with Early Mycenaean pottery[8]. An alabaster vase and a faience vase, found with Middle Mycenaean pottery in the tholos, may well be importations from Crete, since a number of Cretan objects—steatite lamps, etc.—were found with them[9].

3. At Vaphio, in the undisturbed pit in the tholos, dated to Middle Mycenaean times, was found a baggy vase of banded alabaster of mid-Eighteenth-Dynasty shape, together with a silver spoon and a pointed alabaster amphora[10]. Here again there is the possibility of their having been imported from Crete, since the famous gold cups found with them are certainly of Minoan fabric.

Taking these two periods, Early and Middle Mycenaean (L.H. I and II), together, we find that there are at the most two objects of the period in Egypt, one of which is in a much later deposit; and that from the three sites on the Mainland, Mycenae, the Argive Heraeum and Vaphio, come eleven Egyptian objects of a date not later than the middle of the Eighteenth Dynasty, of which two may not be Egyptian at all, one is quite unstratified and six may well have been brought over from Crete and not direct from Egypt (Pl. xxi).

But when we come to the Late Mycenaean or L.H. III period, it is obvious that something has occurred to throw Egypt and the "Peoples of the Isles" together[11].

[1] The sherds from Lâhûn (British Museum A. 278-9, called—*faute de mieux*—Middle Helladic) are Syrian and, Mr. R. W. Hutchinson tells me, can be paralleled from Sedment.

[2] *Archaeologischer Anzeiger*, 1899, 57, fig. 1.

[3] Davies, *Five Theban Tombs*, Pl. xli. It may well, however, be a very "provincial" example of L.M. I *b*.

[4] **89, 90**; Schuchhardt's *Schliemann*, 213 and 208, fig. 198.

[5] **97**; from tomb 518. Athens National Museum. Case 53.

[6] **98**; Bosanquet, *J.H.S.*, XXIV, 324, Pl. xiv*e*.

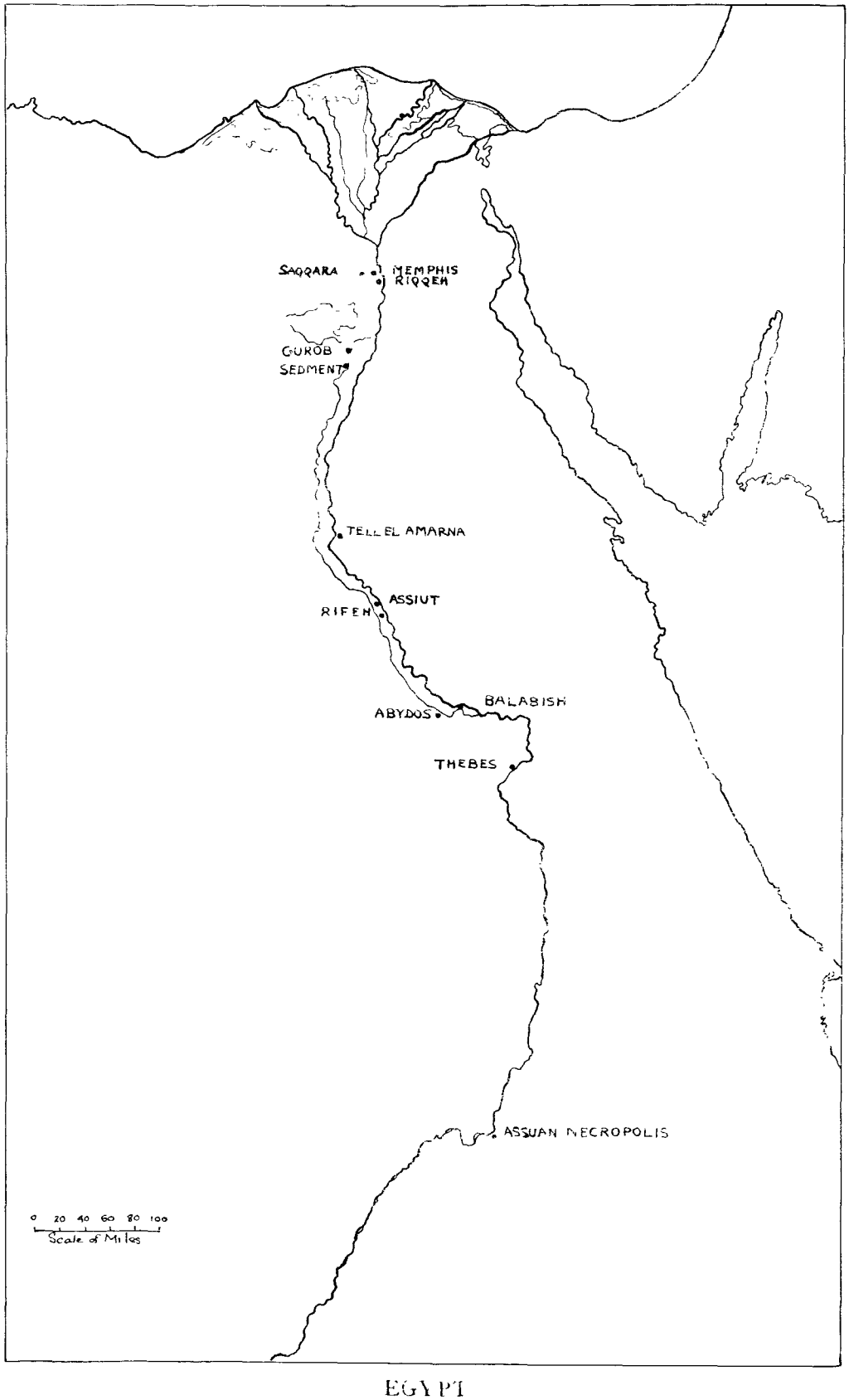
[7] **85**; Hall, *B.S.A.*, VIII, 188, fig. 30.

[8] **105**; Blegen, *A.J.A.*, 1925, 427.

[9] **103, 104**; *B.S.A.*, XXV, 336.

[10] **72-74**; Tsountas, Ἐφημερὶς Ἀρχαιολογική, 1889, 153, 154, Pl. vii, 17, 18.

[11] I use the term "People of the Isles" because the pottery following, while totally different in fabric, and in most of the patterns, particularly those on the shoulders of stirrup vases, from that of Crete, is of a type which is common enough in the Argolid but especially frequent in Rhodes and, to some extent, in Cyprus. The term therefore implies the inhabitants of the Aegean excluding Crete.




EGYPT

Distribution of Aegean Pottery after the fall of Crete

The evidence is as follows (Pl. xxiv)[1]:

1. From Abydos comes a stirrup vase, unstratified above an early Eighteenth-Dynasty house[2], and another stirrup vase also unstratified from Gadra[3].

2. From Asyûṭ comes a stirrup vase, context unknown[4].

3. From Aṣwân comes a stirrup vase from an early Nineteenth-Dynasty grave[5].

4. From Balâbîsh come four stirrup vases and two pilgrim bottles, all from the late Eighteenth-Dynasty cemetery[6].

5. From Gurob come nineteen stirrup vases in deposits ranging from the reign of Amenophis III or Akhenaten to that of Ramesses II; a stirrup vase, a piece of a jug and part of a filler which belong to the very beginning of the style[7]; and another stirrup vase—these last four unstratified[8].

6. From Memphis comes a sherd from a stirrup vase, unstratified, from the temple of Merenptah of the Nineteenth Dynasty[9].

7. From Mostai comes a stirrup vase from a necropolis of the Nineteenth Dynasty which has been re-used in the Twentieth Dynasty[10].

8. From Rîfah come two stirrup vases and a jug from the late Eighteenth-Dynasty tombs[11].

9. From Riḳḳah come three stirrup vases and a pilgrim bottle from Eighteenth-Dynasty or later burials[12].

10. From Saḳḳârah comes a stirrup vase said to be from a Fifth-Dynasty grave[13]!

11. From Sedment come three stirrup vases and one jug, all from late Eighteenth-Dynasty deposits[14].

12. From Tell el-'Amarnah come countless fragments of bowls, jars, cups, goblets, jugs, bottles, and stirrup vases, from the city of Akhenaten (*i.e.* c. 1370–1340)[15].

13. From Thebes come stirrup vases from the modern Ḳurnah[16], a cup and sherds from the palace of Amenophis III[17] (to which may be added a stirrup vase said to come from the grave of a grandson of Pinezem I of the Twenty-first Dynasty; if it does, it is a case of later re-use, for the vase is certainly considerably earlier[18].

From some unknown provenance come five stirrup vases in the Cairo Museum[19].

[1] All this pottery following belongs to the first half of the Late Mycenaean period (L.H. III*a*). No Late Mycenaean B (L.H. III*b*) has yet appeared in Egypt, *cf.* Forsdyke, *Catalogue of Vases in the British Museum*, I, 1, p. xliii.

[2] Petrie, *Abydos*, III, Pl. lviii.

[3] Edgar, *Catalogue of Greek Vases in the Cairo Museum*, No. 26129.

[4] Cairo Museum, 46224.

[5] Elephantine Museum. Fimmen, *Die Kretisch-Mykenische Kultur*, 99.

[6] Wainwright, *Balabish*, Pl. xxv. Cairo Museum, 47084.

[7] Forsdyke, *Catalogue*, A 981–983.

[8] Petrie, *Kahun, Gurob and Hawara*, Pl. xxviii; *Illahun, Kahun and Gurob*, Pls. xvii, xix, xx; Engelbach and Brunton, *Gurob*, Pl. xxix; Loat, *Gurob*, Pl. xvii. Cairo Museum, 47079; British Museum, A 981–989; Ashmolean Museum, 891–893.

[9] Petrie, *Memphis*, II, Pl. xxii.

[10] *Ann. Serv.*, XII, 209–213. Cairo Museum, 43735.

[11] Petrie, *Gizeh and Rifeh*, Pls. xxiii, xxvii.

[12] Engelbach, *Riqqeh*, Pl. xxii.

[13] Furtwaengler, *Mykenische Vasen*, 31, No. 159.

[14] Petrie and Brunton, *Sedment*, Pls. lix, lxv. Cairo Museum, 47011; Ashmolean Museum.

[15] Petrie, *Tell el-Amarna*, Pls. xxvi–xxx; Borchardt, *Mittheilungen des Deutschen Orientalgesellschaft*, 52 (1913), 53; Forsdyke, *Catalogue*, 183 ff. British Museum, A 990–999; British School at Athens, etc.

[16] Edgar, *Catalogue*, 3. Cairo Museum, 26131.

[17] *Arch. Anz.*, 1899, 57.

[18] Hall, *Oldest Civilization of Greece*, fig. 28. British Museum, 22821.

[19] Cairo Museum, 26127, 26128, 26130, 26132, 26133.

Examining the above list we see that wherever these vases are found in an undisturbed deposit that deposit is of the reign of Amenophis III or later.

The Egyptian objects which have been found in the Aegean also go to show that the connexion had suddenly strengthened. They, again, may be summed up most conveniently as follows (Pl. xxiii)[1]:

1. In chamber-tomb 2 at Asine, Persson discovered the half of an Old Kingdom hornblende-porphyry bowl, and the ivory head of a duck, which may be dated with great probability to the Eighteenth Dynasty[2].

2. Inside the doorway of chamber-tomb 2 at Dendra the same excavator found an alabaster vase[3].

3. Mycenae at this period seems to have imported a large number of Egyptian objects. From a house north-east of the Lion Gate come the fragments of two faience plaques, one inscribed with the name of Amenophis III, the other with the beginning of the royal name[4]. From a house to the south-west of the Acropolis comes a scarab bearing the name of Queen Tiyi[5]. From tomb 49 comes a blue faience vase inscribed with the name of Amenophis III[6]. From some other chamber-tomb appear three wine-jars of a type very uncommon before the 'Amarnah period[7]; the pottery in this case is unfortunately not given. In tomb 526 were discovered two scarabs which approximate to types common in the reign of Amenophis III[8]. From the unstratified earth obstructing the doorway and dromos of the "Treasury of Atreus" comes an alabaster vase[9]; while from a similar unstratified deposit in the "Tomb of Clytaemnestra" comes another vase of the same type[10].

4. From under the temple of Poseidon at Calauria comes an early Eighteenth-Dynasty scarab, which is however in a safe Late Mycenaean deposit[11].

5. The tholos at Menidi has produced four pottery amphorae similar to those from Mycenae mentioned above, datable to the end of the Eighteenth Dynasty. The context in which they were found is unfortunately mixed, but they probably belonged to the earliest interment[12].

6. An alabaster vase from Chalcis in Euboea is said to come from one of the Late Mycenaean tombs excavated by Papavasileiou, though it is not mentioned in his publication[13].

7. In tomb 39 at Ialysos in Rhodes were found three scarabs, one bearing the name of Amenophis III, the two others being possibly a little later[14].

[1] Unless otherwise stated they are all well stratified in Late Mycenaean (L.H. III) deposits.
[2] **149, 150**; Persson, *Asine*, 1922, Pl. xxxix. [3] **148**; Persson, *Kungagraven i Dendra*, 150.
[4] **86, 87**; Tsountas, Ἐφ. Ἀρχ., 1891, Pl. iii; Sewell, *P.S.B.A.*, xxvi (1904), 258.
[5] **88**: Tsountas, Ἐφ. Ἀρχ., 1887, Pl. xiii.
[6] **91**; Tsountas, Ἐφ. Ἀρχ., 1888, 156, figs. 10, 10*a*.
[7] **92, 94**; Tsountas, Μυκῆναι, 213 f., figs. 1, 2.
[8] **95, 96**; *Cambridge Ancient History* (Illustrations), I, 166. [9] **99**; *B.S.A.*, xxv, 356.
[10] **100**; *B.S.A.*, xxv, 367.
[11] **151**; *Ath. Mitth.*, 1895, 309 ff., fig. 20. I was wrong in calling this unstratified in *Aegyptiaca*.
[12] **153, 156**; Lolling, *Kuppelgrab bei Menidi*, Pl. ix, 1–4.
[13] **287**; Athens National Museum, Terracotta Room I, Case 173, No. 13645.
[14] Forsdyke, *J.H.S.*, xxxi, 114. For further evidence see my report in the forthcoming publication of Ialysos by Professor Maiuri. The scarab of Amenophis III is Brit. Mus., 70-10-8. 130; Hall, *Catalogue of Scarabs*, No. 1915. It was erroneously said by Furtwängler-Löschke, *Myk. Vasen* (Text), Pl. E, 1, p. 75, to be fastened to a ring of silver wire.

8. From Kameiros in Rhodes come three late Eighteenth-Dynasty scarabs unstratified[1]. It is also noteworthy (*cf.* above, p. 86, note 11) that most of the pottery of this period found in Egypt is of a distinctly Rhodian type.

We thus obtain a total from eight sites of:

1. Egyptian objects stratified in Late Mycenaean (L.H. III) deposits:
   (*a*) Datable before the reign of Amenophis III, 2.
   (*b*) Datable to the reign of Amenophis or later, 15.
   (*c*) Datable before or after the reign of Amenophis, 4. A total of 21.
2. Egyptian objects unstratified of the reign of Amenophis III or later, 6.

We are now in a position to look at the combined evidence from Egypt, Crete and the rest of the Aegean, and to summarize the results obtained.

1. The Keftians are the Cretans. They appear regularly throughout the Eighteenth Dynasty until the reign of Amenophis III, when mention of them ceases.

2. Egyptian objects are common in Crete until the end of L.M. II, when they practically disappear. A seal of queen Tiyi, wife of Amenophis III, is the latest datable object found before the fall of the Minoan power.

3. Cretan pottery of L.M. I, a style which in many parts of Crete lasts until the catastrophe, is found in Egypt until just before the reign of Amenophis III. No L.M. III pottery is found in Egypt.

4. The People of the Isles are the inhabitants of the Aegean, including the mainland of Greece. Mention of them is rare and vague until the reign of Amenophis III.

5. Egyptian objects are very rare and confined to three sites on the mainland during the Early and Middle Mycenaean periods (L.H. I and II), and in most cases may well be imports *via* Crete. In the Late Mycenaean (L.H. III) period, however, a flood of Egyptian objects appears, many of which can be dated to the reign of Amenophis III.

6. Early and Middle Mycenaean pottery appears only twice in Egypt, in both cases in very doubtful contexts. Late Mycenaean however appears in enormous quantities, and its first appearance is in the reign of Amenophis III.

### Historical Conclusions.

It is clear that the opening of relations between Egypt and the Mainland and Islands coincides with the fall of the Minoan state and the destruction of its political and commercial importance, and it is difficult to believe that there is not some historical connexion between these two facts. The date can be put somewhere in the reign of Amenophis III.

No satisfactory explanation of the disaster which overtook the Cretan cities has been put forward[2]. It has been generally attributed to the men of the Mainland, who, desirous of the treasures of the great palaces, or chafing under the foreign yoke, swarmed down on to the island and in the spirit of a Danish raid on East Anglia sacked and burned the cities, retiring to leave heaps of smoking ruins, to which the survivors crept back, dispiritedly to rebuild and carry on the old culture. This theory however will not explain the facts. No mere raiding parties would desolate the island so completely and

[1] British Museum, 64–10–7. 904, 60–2–1. 105, and Gem Room, Case 60 K, No. 254.

[2] *Cambridge Ancient History*, II, 442 ff. Sir Arthur Evans, *P. of M.*, II, 1, p. 320, gives reasons for supposing the overthrow of Knossos, at least, to be due to an earthquake; the destruction of the cities as a whole, however, must be attributed to human agency. Myres and Frost, *Klio*, 1914, 458, just stop short of making the suggestion which I give below.

bring utter and simultaneous destruction alike on palace and small town. Such an expedition as this savage devastation implies would need great organization and what must practically have amounted to a united effort and an alliance for a particular purpose. At the time of its downfall Crete shows no weakness; no scattered shiploads of vikings could have laid her low.

Nor can it have been for the purposes of colonization. The lingering, dying civilization of L.M. III shows hardly a trace of mainland influence[1].

It cannot have been mere revenge for former supremacy. That is not how things happen. The French did not pursue the English across the Channel in the 15th century A.D., nor did the Americans attempt an invasion after driving the English from the colony. I do not say that revenge did not enter into the matter. We may take the story of Theseus and see how perhaps the continued tribute of youths and maidens to the bull-rings of Minos may have been the "scrap of paper" that united the powerful Minoan colonies and dominions in the Aegean against their masters. But the cause is deeper than that, and perhaps the evidence may be interpreted as follows.

In L.M. I and II Crete possessed an empire which extended over a large part of the southern mainland of Greece as well as the islands[2]. This empire had probably become to a large extent independent, though subject to tribute, and, increasing in prosperity, desired an outlet. The most profitable trade in the Eastern Mediterranean at that time was undoubtedly the Egyptian trade, and it was of that trade, as we have seen above, that Crete obviously held the monopoly. To what straits the overseas dominions were reduced may perhaps be seen from the legend of Jason, who is the first to attempt to open up the wealth of the Black Sea[3]. This attempt was hazardous in the extreme, nor were the results particularly rich when compared with the wealth accumulated by Crete as the result of her monopoly of the Egyptian markets. Accordingly, we may imagine, these subjects of Minos banded themselves together, perhaps under Theseus[4], and, the enormity of the tribute of youths and maidens arousing national enthusiasm, they collected their fleets and set out deliberately to destroy the power of Crete and to open up the way to Egypt and to fortune. Was there a great sea battle in which the galleys of Minos were overwhelmed by the long ships of the Men of the Isles? Was the power of Knossos already broken by an earthquake? Was there treachery and a rising of the populace? We shall never know. But after that wild year Crete lay in the dust, and desolation reigned from Agia Triada to Palaikastro, and her destroyers sailed away, as two hundred years later departed the ravagers of Troy. Surely that is how it happened.

The hard-won trade between Egypt and the Aegean opens at once, but it has its difficulties. Mainland and islands have never been at unity for long, and, just as after the united effort of the Persian War the old jealousies broke out, so now the allies

[1] See particularly Mackenzie, *B.S.A.*, XI, 220 ff. No Minyan pottery, even of the latest fabric, has been found in Crete, and the Cretan stirrup vases, for instance, could never be confused with Rhodian or Argolic examples.

[2] The overwhelmingly Minoan character of the Mycenaean civilization of South Greece can only be so explained. But was it a deliberate conquest, a gradual extension of trading centres or the act of some disowned Minoan chief, who like Mosilikatze in Matabeleland, may have founded a new dominion?

[3] If it is objected that the Argonauts are traditionally only a generation before the Trojan War it must be remembered that they are of the same generation as Theseus. Traditional history always telescopes important events and characters.

[4] Archaeology is the champion of tradition, and we have no reason to cast aside the one man whom ancient tradition connected, if not with the fall of Knossos, at least with the liberation of her subjects.

separated, many of them no doubt to return to a congenial life of petty local fighting and robbery. With the fall of the Minoan thalassocracy the Mediterranean was made safe for piracy. It is no mere coincidence that towards the end of his reign Amenophis III has to increase his coastal police to check the Lycians and others who disturbed the peace of the seas around the Delta[1]. This sudden necessity must have arisen very shortly after the fall of Crete.

So began the connexion of Egypt with the Aegean. Crete was so utterly wiped out that we need not be surprised at the Atlantis legend, whose claims to historical accuracy Mr. Frost has so fascinatingly put forward[2]. It must have seemed exactly as if the island had sunk, for here were these Peoples of the Sea, of whose existence somewhere on the far side of Crete the Egyptians had been vaguely aware, coming direct to Egypt with their wares exactly as if Crete had never existed.

These relations, once established, are peacefully kept up for a century and a half, even through the troubles of Akhenaten's reign and those of his successors[3]. But in the reign of King Merenptah Egypt was threatened with a desperate attack, not only from her neighbours the Libyans, but by a confederacy of the Peoples of the Sea[4], and in their black ships come the Achaeans and the Shakalsha, the Tursha and the Lycians swinging their long swords and thirsty for the wealth of Egypt. The old Pharaoh broke the invaders at the battle of Piari and Egypt had peace for a generation, until in the time of Ramesses III the Isles were again restless and disturbed among themselves, and Egypt again had to face a joint invasion by land and sea. But Pharaoh is a general and the Peoples of the Sea are trapped and slaughtered, and Egypt is troubled no more.

The leadership of this second invasion has been attributed with great probability to Agamemnon the son of Atreus[5]. This not only fits in with the accepted date of the Trojan War, but, as I hope to show, goes far towards explaining it.

What however nothing will explain is the more than Pelopid stupidity of these two invasions. The Peoples of the Sea and Egypt, as we have seen, had traded peacefully with one another for nearly two centuries. Some of the Tursha had even settled in Egypt[6], and the Shardana were mercenaries in Pharaoh's service. There is no doubt that it was the Aegean which benefited most from this intercourse, and this makes the sudden hostility all the more inexplicable[7]. In any case the result was utterly disastrous to Achaea. After her escape from this latest danger, Egypt shuts herself up.

[1] Amarna Letters, 28 (Winckler). Breasted, *History of Egypt*, 338; *Cambridge Ancient History*, II, 98.

[2] *J.H.S.*, XXXIII, 191 ff.

[3] *Cf.* the list of pottery above and the many imitations of stirrup vases in faience, *e.g.* von Bissing, *Fayencegefässe in dem Cairo Museum*, 21 f., 3676, 3677; *Ath. Mitt.*, 1898, Pl. viii, 6, 7, in alabaster. Griffith, *Tell el-Yahudiyeh*, Pl. xv, No. 15. *Cf.* Hall, *C.G.B.A.*, 222.

[4] Myres and Frost, *Klio*, 1914, 446 ff., refer this invasion to the generation of the Argonauts. But now that Atreus seems to have become a historical character, it is difficult to dissociate him from the leadership of the Achaeans and Sea Peoples.

[5] Myres and Frost, *Klio*, 1914, 446 ff.

[6] They had settled particularly at Gurob, where Petrie found their cemetery (cf. Petrie, *Kahun, Gurob and Hawara*, 33, 36, 40). It is to settlements such as these that I would attribute the coarsely-made stirrup vases which are usually considered to be Egyptian imitations.

[7] Are we to imagine a sudden reversal of policy by the new "Achaean" dynasty of Atreus, or may the "political circles" of Achaea have been misinformed, and led to believe that Egypt would be overwhelmed by the Libyan invasion, and that their only chance of reaping any profit would be to join the invaders and share the spoils? We have of course no evidence for this. But I think we are justified in giving the Heroic Age of Greece its place in the general history of the Eastern Mediterranean.

There is no more commercial intercourse. Egyptian ports are closed and the appearance of a sail on the horizon is a call to arms[1]. Achaea is cut off from her great source of wealth; where can she turn?[2] Asia Minor is a nest of pirates and the Hittites are still strong enough to resist foreign influence. There are two possibilities, the West and the Black Sea. Remembering the attempts of Jason, in the days when once before Egypt had been a closed country, and the wealth of Colchis with which the Argonauts had returned, the chiefs of Achaea turn to the Black Sea. But in the days of Jason Troy had not yet become the strong and powerful city that she now was, keeping the Black Sea trade as her pet preserve, just as two centuries earlier Crete had kept the Egyptian trade[3]. So history repeated itself, and this time too men could find a sentimental reason for a war of economic necessity. As previously it may have been the human tribute for the bull-ring so now it was the rape of Helen which united the scattered states. The Achaeans may have felt that they were fighting for Helen and their honour; actually they were fighting as their forefathers had fought for their prosperity and their power among nations.

In these pages I have suggested that the downfall of Crete was due, not to a wild barbaric raid with mere aimless looting and destruction as its object, nor to a colonizing impulse on the part of the Mainland, but to the economic necessities of the powerful Cretan colonies in the Aegean and their desire to control the rich commerce with Egypt.

Secondly I have very tentatively suggested that the stupid and violent rupture of these hard-won relations with Egypt was the direct cause of the Trojan War and ultimately of the downfall of the Achaean power.

My evidence is drawn from Egypt alone, and is confined to the tangible results of excavation. It can be supplemented by a comparison of the artistic influences exercised both by Egypt on Crete and the Aegean and by Crete and the Aegean on Egypt[4]. But into that difficult country I have not ventured.

[1] Cf. *Odyssey* 14, l. 245 ff.

[2] For a hint of this see Nilsson, *The Minoan-Mycenaean Religion*, 39.

[3] And as many centuries later the Carthaginians and Phoenicians kept the trade with Britain and Spain. T. W. Allen has objected that the Black Sea trade of that time was not worth having, but of that we have no proof one way or the other, except that the Argonauts thought it worth while trying and when we get into the historical period it was certainly extremely rich. The alternative theory that the cause of the Trojan War was a colonizing impulse can hardly be upheld since no colonies were founded till centuries later and in any case it was not Troy which stood in the way but the dying Hittite Empire.

[4] See particularly H. Frankfort's Chapter I in *The Mural Paintings of El 'Amarneh*.

# BIBLIOGRAPHY (1927): ANCIENT EGYPT

By JEAN CAPART

The following abbreviations have been used in quoting periodicals:

*A.E.* = *Ancient Egypt.*
*A.J.A.* = *American Journal of Archaeology.*
*A.J.S.L.* = *American Journal of Semitic Languages.*
*Ann. Serv.* = *Annales du Service des Antiquités d'Égypte.*
*Ä.Z.* = *Zeitschrift für ägyptische Sprache.*
*B.M.F.A., Boston* = *Bulletin of the Museum of Fine Arts, Boston.*
*B.M.M.A.* = *Bulletin of the Metropolitan Museum of Art, New York.*
*B.P.W.* = *Berliner Philologische Wochenschrift.*
*B.S.R.G.E.* = *Bulletin de la Société Royale de Géographie d'Égypte.*
*Bull. Inst. fr. d'arch. or.* = *Bulletin de l'Institut français d'archéologie orientale du Caire.*
*Chron. Ég.* = *Chronique d'Égypte.*
*D.L.Z.* = *Deutsche Literaturzeitung.*
*I.L.N.* = *Illustrated London News.*
*J.A.O.S.* = *Journal of the American Oriental Society.*
*J.M.E.O.S.* = *Journal of the Manchester Egyptian and Oriental Society.*
*J.R.A.I.* = *Journal of the Royal Anthropological Institute.*
*J.R.A.S.* = *Journal of the Royal Asiatic Society.*
*J.S.O.R.* = *Journal of the Society of Oriental Research.*
Liverpool *Annals* = *Annals of Archaeology and Anthropology* published by the University of Liverpool.
*O.L.Z.* = *Orientalistische Literaturzeitung.*
*Q.S.P.E.F.* = *Quarterly Statement of the Palestine Exploration Fund.*
*Rev. arch.* = *Revue archéologique.*
*R.É.A.* = *Revue de l'Égypte ancienne.*
*W.Z.K.M.* = *Wiener Zeitschrift fur die Kunde des Morgenlandes.*
*Z.D.M.G.* = *Zeitschrift der Deutschen Morgenlandgesellschaft.*

Je tiens à dire en commençant ce bulletin bibliographique, et de la façon la plus nette, l'impression que j'éprouve d'avoir compulsé les nombreuses fiches dont je présente ici le groupement. L'égyptologie, comme beaucoup de disciplines spéciales, est en train de s'enliser dans un marécage d'érudition. Qui peut se vanter de pouvoir suivre encore le mouvement de la science? J'ai eu à peu près tout en mains, je me suis bien gardé de tout lire et même de tout parcourir. A quoi bon? On recommence tant de fois les mêmes tâches, plus ou moins bien, faute de savoir qu'on les a déjà accomplies. Ma consolation, en faisant ce travail de bibliographie, interrompu trop souvent par mes autres travaux, est d'arriver, peut-être, à éviter à l'un ou l'autre de mes collègues une perte de temps. La Fondation Égyptologique Reine Élisabeth réunissant à peu près toute la bibliographie de l'égyptologie, au jour le jour, se doit d'en mettre le bilan sous les yeux du public savant. Peut-être certains me reprocheront-ils d'avoir commis des erreurs ou des oublis, de ne pas avoir suivi le classement idéal. Mieux que n'importe qui, je me rends compte des nombreuses lacunes et des imperfections de mon travail. J'ai fait de mon mieux et j'espère qu'on voudra bien se demander, avant d'être trop sévère, si l'on pourrait faire davantage sans disposer de nombreux collaborateurs dévoués. Je tiens à dire, comme l'année passée, combien les relevés de l'Orientalistische Literaturzeitung m'ont été précieux. Mr. G. Bovy, bibliothécaire de la Fondation, a de nouveau assemblé avec soin les fiches des divers unités bibliographiques qui lui passaient sous les yeux.

Je voudrais formuler un vœu: les auteurs ne pourraient-ils prendre l'habitude de donner à leurs travaux des titres indiquant avec précision la portée de leurs publications; ou voudraient-ils s'habituer à résumer eux-mêmes le résultat de leurs études en quelques lignes à la fin de leurs articles et de leurs livres? Ils simplifieraient singulièrement la tâche des bibliographes et empêcheraient de multiples erreurs.

*Bibliographie:* H. Gauthier, *Bulletin bibliographique* 1925–26, dans le *B.S.R.G.E.*, xiv, 217–43; J. J. Marquet de Vasselet, *Répertoire des catalogues du Musée du Louvre,* Paris; *Catalogue de la Bibliothèque Édouard Naville,* Genève; Compte-rendu par W. Wreszinski, dans *O.L.Z.*, xxx, col. 159–60 de Ida A. Pratt, *Ancient Egypt, Sources of information in the New York Public Library* (1925). La

publication longtemps attendue de BERTHA PORTER et ROSALIND L. B. Moss a commencé à paraître sous le titre: *Topographical Bibliography of ancient Egyptian Hieroglyphic Texts, Reliefs and Paintings. I. The Theban Necropolis*, Oxford. C'est le premier essai de véritable systématique en égyptologie.

### CONSERVATION.

A. S[COTT], *Laboratory Notes: Egyptian leather roll of the seventeenth century B.C.*, dans *The Brit. Mus. Quarterly*, II, 56–7, pl. XXXIV *a*, *b*, with a note by H. R. H[ALL], explique par quels procédés il a été possible de dérouler le rouleau de cuir B.M. 10250. A. GRADENWITZ, *La Réparation d'une statuette antique par l'électrolyse*, dans *La Science et la vie*, avril 1927, 347 et 2 fig., décrit le traitement d'un bronze d'Isis. A. LUCAS, *The Necklace of Queen Aahhotep in the Cairo Museum of Antiquities*, dans *Ann. Serv.*, XXVII, 69–71, donne le résultat d'un examen technique du collier décrit différemment par Bissing et Vernier. ARMINGON, *Le Régime des antiquités et des fouilles en Égypte*, Paris, dans la *Revue politique et parlementaire*, CXXXIII, no. 396 (1927), 296–308, discute le problème des concessions de fouilles et du partage des objets découverts. M. PILLET, *Les Causes de la destruction des ruines de Karnak*, dans le *Bull. de l'Inst. d'Égypte*, IX, 136, résume une communication qui formera un chapitre du prochain Guide descriptif de Karnak. F. CABROL, *Courrier Anglais. En Égypte. Fouilles*, dans la *Revue des Questions historiques*, 1927, 195–6, est une courte note sur l'Osireion d'Abydos et le grand sphinx de Gîzeh.

Voir aussi JEAN CAPART, *La Tombe aux Guêpes*, dans *Chron. Ég.*, II (1927), 116–8 avec 1 fig.

### FOUILLES ET TRAVAUX.

J. H. BREASTED décrit les travaux divers engagés par son institut, dans une brochure sans date: *The Oriental Institute of the University of Chicago*. On remarquera sur la couverture la photographie d'un pectoral au nom d'Amenemhat III, découvert à Megiddo. Voir aussi: *Breasted's latest discoveries* dans *El Palacio* (Santa Fé), XXII, 521–2.

Miss W. M. CROMPTON, *Recent Excavations in Egypt*, dans le *J.M.E.O.S.*, XIII, 19–20, résume les dernières trouvailles et insiste sur la découverte du tombeau du prince Hardadef à Gîzeh.

J. BAIKIE, *The Glamour of Near East Excavation*, Londres, 1927, contient deux remarquables photos inédites des fouilles de Reisner à Gîzeh: Boat-pit et Tomb of Kar.

Je n'ai pas vu R. EUSTACE, *Hidden treasures of Egypt*, Londres.

WALTER WRESZINSKI publie un important rapport sur une expédition en Égypte au cours de laquelle il a visité de nombreuses localités peu connues: *Bericht über die photographische Expedition von Kairo bis Wadi Halfa zwecks Abschluss der Materialsammlung für meinen Atlas zur altägyptischen Kulturgeschichte*, Halle, dans les *Schriften der Konigsberger Gelehrten Gesellschaft*, IV. Geisteswissenschaft. Klasse, avec 77 planches. Une courte notice est publiée par l'auteur sous le titre: *Photographische Expedition nach Aegypten und Nubien*, dans *Forschungen und Fortschritte*, III, 199–200; un compte-rendu dans *A.E.*, 1927, 94.

N. REICH publie dans le *J.A.O.S.*, XLVII, 273–4, un compte-rendu de J. BAIKIE, *Egyptian Papyri and Papyrus-Hunting* (1925).

O. KOEFOED-PETERSEN, dans *O.L.Z.*, XXX (1927), col. 97–9, résume l'histoire des fouilles en Égypte publiée par G. HOWARDY, *Fra Faraos Land*, Copenhagen, 1925.

*Abuṣîr el-Meleḳ*. Le mémoire de A. SCHARFF (1926) est l'objet de compte-rendus par H. BONNET, dans *O.L.Z.*, XXX, col. 467–9, et H. KEES, dans *D.L.Z.*, XLVIII, col. 2006–11. Bonnet exprime des doutes au sujet des conclusions générales de Scharff.

*Abydos. Une courte note sur les travaux du cénotaphe de Sethi Ier*, dans la *Revue des Musées et Collections archéologiques*, II, 324, marque une certaine lenteur dans l'information.

*Erment. I.L.N.* publient dans leur numéro 4586 du 12 mars, 429, avec 2 figg., une note sur le Sérapeum d'Erment découvert par R. MOND. Voir aussi *A.J.A.*, XXXI, 361.

*Fayyûm*. Miss G. CATON-THOMPSON, *Explorations in the Northern Fayum*, dans *Antiquity*, I, 326–40 avec 8 planches, continue à publier les résultats de ses importantes recherches. Son mémoire sur *The neolithic industry of the Northern Fayum Desert* (1926) est analysé par S. REINACH, dans la *Rev. Arch.*, XXVI, 304.

*Gîzeh*. Deux courtes notices sont publiées dans *Archiv für Orientforschung*, IV, 39 et 117.

La tombe de la mère de Khéops a été l'objet de nombreux commentaires: *A Pharaonic burial of the Pyramid Age. The 5000-years-old tomb of the mother of Cheops*, dans *I.L.N.*, no. 4588, 26 mars, 537–9 et figg.; J. CAPART, *La Mère de Khéops*, dans *Chron. Ég.*, no. 4, 126–9; *Queen Hetepheres*, dans *Art and*

*Archaeology*, XXIV, 191 ; *Hetep-Heres, Mother of Cheops*, dans *A.J.A.*, XXXI, 361 ; *La Tombe secrète de la reine Hetepherès*, dans *Beaux Arts*, V, 130 ; S. REINACH, *La Tombe de la mère de Chéops*, dans *Rev. Arch.*, XXV, 393 ; G. A. REISNER, *And the Tomb was empty*, dans *El Palacio*, XXII, 522 ; ID., *Hetep-Heres, mother of Cheops*, dans *B.M.F.A.*, Boston, XXV, special number ; ID., *The archaeological significance of the tomb of Hetep-heres*, dans *Art and Archaeology*, XXIV, 89–93 et 5 figg. ; ID., *The Tomb of Queen Hetep-heres*, dans *B.M.F.A.*, Boston, XXV, 54 ; *The 5000-years mystery tomb of Hetepheres: the mother of Cheops*, dans *I.L.N.*, no. 4586, 12 mars, 436–7 et figg. ; *The Tomb of Queen Hetepheres*, dans *Antiquity*, I, 216–18 et 2 pl.

La tombe de Meresankh est décrite dans les travaux suivants : G. A. REISNER, *The Tomb of Meresankh, a great-granddaughter of Queen Hetep-Heres I and Sneferuw*, dans *B.M.F.A.*, Boston, XXV, 63–79 et 20 figg. ; ID., *The first recorded fair hair on "a brow of Egypt." A remarkable painted tomb discovered at Giza*, dans *I.L.N.*, no. 4603, 69 et figg. ; *La tombe de la petite-fille de Chéops*, dans *Rec. Arch.*, XXVI, 180 ; *Granite Sarcophagus of Princess Meres-Ankh*, dans *B.M.F.A.*, Boston, XXV, 60.

Les fouilles de H. Junker dans les mastabas sont décrites dans *Vorlaufige Bericht uber die funfte Grabung der Akademie bei den Pyramiden von Gizeh*, dans le *Anzeiger der Akad. d. Wiss. in Wien*, phil.-hist. Klasse, 1927, no. XIII, 94–160 avec 10 pl. et un plan, résumées par leur auteur : *Die Grabungen der Akad. d. Wiss. in Wien auf der Nekropole bei den Pyramiden von Gise, Winter 1927*, dans *Forschungen und Fortschritte*, III, 274–5 et 2 fig. ; *Mastaba du nain royal Seneb*, dans *Beaux Arts*, V, 146 ; *La Tombe de Seneb*, dans la *Rev. Arch.*, XXV, 394.

Sur le Sphinx on peut lire : M. PILLET, *Le Sphinx désensablé*, dans la *Revue de l'art ancien et moderne*, LI, 51–55 et 5 figg. ; *Sphinx relieved of its shroud of sand*, dans *Art and Archaeology*, XXIV, 44 et 2 figg.

*Gurob.* GUY BRUNTON et REGINALD ENGELBACH, *Gurob* (British School of Archaeology in Egypt and Egyptian Research Account), publient le résultat des fouilles faites en 1920.

*Héliopolis.* H. GAUTHIER, *Une Tombe d'époque saïte à Héliopolis*, dans *Ann. Serv.*, XXVII, 1–18, 4 figg., décrit une tombe d'un père divin, contemporain de la XXVI^e^ dynastie, contenant des textes empruntés au Livre des Pyramides et au Livre des Morts et un mobilier funéraire comprenant une intéressante série d'amulettes. Pourquoi ne pas lire le nom du défunt *ṯs-t wšḥ-ib-rᶜ* ?

*Héou.* Une fouille de quelques jours en bordure de la nécropole de Tell Héou a fait découvrir une chapelle d'époque romaine dépendant de catacombes d'animaux sacrés. Une tombe du moyen empire de la nécropole même a donné une série curieuse de figurines en terre cuite d'un type peu fréquent : J. CAPART, *Rapport sur une fouille faite du 14 au 20 février 1927 dans la nécropole de Héou*, dans *Ann. Serv.*, XXVII, 43–8, figg. ; ID., *Une Semaine de fouilles à Tell-Héou*, dans *Chron. Ég.*, no. 4, 105–11 et 4 figg.

*Marsa Maṭrûḥ.* O. BATES, *Excavations at Marsa Maṭrûḥ*, dans *Harvard African Studies*, t. VIII, Cambridge (Mass.), 1927.

*Qau.* Sous le titre *Qau and Badari I*, GUY BRUNTON nous donne la première partie des résultats des recherches exécutées pendant plusieurs années par la British School of Archaeology dans le district de Qau. Deux volumes seront nécessaires pour l'étude des monuments de la I^ère^ à la XI^e^ dynastie. On notera particulièrement le chapitre d'Alan H. Gardiner sur une coupe dont l'inscription hiératique est un précieux exemple des "Lettres au mort" au sujet desquelles l'auteur annonce un travail spécial publié en collaboration avec K. Sethe.

*Saḳḳârah.* Une courte notice est publiée dans *Archiv für Orientforschung*, IV, 39.

Témenos de Djeser : C. M. FIRTH, *Excavations of the Service des Antiquités at Saqqara*, dans *Ann. Serv.*, XXVII, 105–11 avec 3 pl., publie un premier rapport sur les appartements souterrains de la mystérieuse tombe du Sud. Le style des reliefs royaux obligera peut-être à reprendre l'étude de la date précise des reliefs de Heb-sed trouvés par Petrie à Memphis (The Palace of Apries). J. PH. LAUER, *Étude sur quelques monuments de la III^e^ dynastie* (Pyramide à degrés de Saqqarah), dans *Ann. Serv.*, XXVII, 112–33 avec 7 pl., donne les restitutions sensationnelles des tombes des princesses, des propylées et des murs d'enceinte.

On lira en outre : J. CAPART, *A Saqqarah*, dans *Chron. Ég.*, no. 4, 122–6 et 3 figg. ; CH. PICARD, *Le Protodorique de Saqqarah et les origines du dorique*, dans la *Revue des Études anciennes*, XXIX, 241–55 ; M. WERBROUCK, *Les Élèves*, dans le *Chron. Ég.*, no. 4, 132–6 et 2 figg.

Partie méridionale de la nécropole. G. JÉQUIER, *Rapport préliminaire sur les Fouilles exécutées en 1926–1927 dans la partie méridionale de la nécropole*, dans *Ann. Serv.*, XXVII, 49–61 avec 5 pl., rend compte des progrès de ses travaux autour de la pyramide de Pepi II. Le temple a donné nombre de reliefs importants, entre autres les exercices gymnastiques des Libyens, des fragments de statues de prisonniers étrangers, dont les têtes, "d'une facture très énergique et vivante, sont toutes différentes." L'auteur émet l'hypothèse singulière que les petites pyramides situées au sud de la pyramide royale n'auraient pas servi

de sépultures pour les reines, mais joueraient un rôle religieux. Voir une note du même auteur: *Fouilles de petites pyramides*, dans le *Bulletin de l'Art ancien et moderne*, 1927, 256.

Région de la pyramide de Teti. J. E. QUIBELL et A. G. K. HAYTER, *Excavations at Saqqara. Teti Pyramid, North side*, publient les résultats de fouilles exécutées en 1912–13 et 1913–14 à proximité des mastabas de Mereruka et Kagemni. On y a découvert des sépultures romaines, de la basse époque pharaonique, du nouvel empire, du moyen et de l'ancien empire. C'est un exemple typique de la superposition des ensevelissements à Saqqarah. Le tombeau de Kaemhest a donné une importante peinture du siège d'une ville avec une échelle d'assaut *sur roues*. Les fouilleurs ont rencontré sans doute une cachette de pillard moderne où les fragments de plusieurs tombes attendaient "en série" l'occasion favorable de vente. (Les noms pl. xv doivent être lus *Mryt* et *Sty*; pl. xix la chanteuse d'Amen de Pr-nfr s'appelle *Mry Shmt*.) Citons encore la jolie série de modèles de bateaux, greniers, ateliers divers de deux tombes de la période héracléopolitaine.

*Tell el 'Amarnah*. H. FRANKFORT, *Preliminary Report on the Excavations at Tell El 'Amarnah* 1926–27, dans *Journal*, XIII, 209–218 avec pl. xliv—liv décrit ses découvertes dans le Temple d'Aten, dans la résidence de Panehsy (un remarquable sanctuaire domestique), le Hall of Foreign Tribute (énigmatique construction) et la partie nord du site de la ville. Les peintures du palais du nord qui seront bientôt reproduites dans un ouvrage spécial, sont de pures merveilles. Citons enfin la délicieuse tête de princesse en quartzite, gardée par le musée du Caire avec le sanctuaire de Panehsy. Voir en outre de H. FRANKFORT, *Recently discovered paintings from Tell el Amarna*, dans *The Burlington Magazine*, LI, 233–9 avec 1 pl.; *The City dedicated to the sun-disc: New Tell el-Amarna "Finds,"* dans *I.L.N.*, no. 4603, 46–7 et figg. Mrs C. RANSOM WILLIAMS publie un vibrant appel de fonds en faveur des fouilles de l'Egypt Exploration Society: *A plea for Tell el Amarna*. Voir aussi *Archiv f. Orientforschung*, IV, 117.

*Thèbes*. Rive droite. H. CHEVRIER, *Rapport sur les travaux de Karnak* (novembre 1926—mai 1927) dans *Ann. Serv.*, XXVII, 134–53 avec 6 pl., a démonté la colonne de Taharqa, continué à extraire du III^e^ pylone les fragments de sanctuaires de la XVIII^e^ dynastie, étendu son chantier au temple d'Aménophis IV, étudié les remblais du temple de Khonsou, recherché les dépôts de fondation du même et fait quelques trouvailles de détail. Citons parmi ces dernières un très beau morceau d'une construction de Sesostris I^er^.

Les fouilles de Médamoud se poursuivent avec succès: M. F. BISSON DE LA ROQUE, *Rapport sur les fouilles de Médamoud* (1926), dans les *Fouilles de l'Inst. fr. d'arch. or. du Caire. Rapports IV*. Voir aussi: *The Excavations at the temple of Medamud. Great discoveries in Egypt. New light on the XIIIth dynasty*, dans *I.L.N.*, no. 4598, 990–1 avec 12 figg. et un résumé de l'article du *Times* du 24 mai, dans la *Rev. Arch.*, XXVI, 180.

Rive gauche. ROBERT MOND et W. B. EMERY, *Excavations at Sheikh abd el Gurneh*, 1925–6, dans Liverpool *Annals*, XIV, 13–34 et pl. i—xxxix continuent avec succès leur travaux de déblayement et de conservation des tombes thébaines. L'œuvre la plus importante s'achève chez Ramose dont la chambre souterraine a été complètement vidée. La tombe de Paheqmen est reproduite sur les pls. xx—xxxi. Voir aussi *A.J.A.*, XXXI, 360–1.

Les travaux de copie dans les tombes thébaines pour compte du Metropolitan Museum se sont continués activement pendant l'hiver 1925–26: *The Egyptian Expedition*, dans *B.M.M.A.*, Dec. 1926, Part II (oublié dans la bibliographie précédente). Voir *A.J.A.*, XXXI, 360.

Le résultat général des fouilles de MOND à Thèbes a été exposé au public à Liverpool: Egyptological Exhibition (The Mond Excavations) at the Liverpool Central Technical School, July 4th to 16th, 1927.

Les fouilles de Deir el Medineh en 1926 sont décrites par leur auteur B. BRUYÈRE, *Rapport sur les fouilles de Deir el Medineh* (1926), dans les *Fouilles de l'Inst. fr. d'arch. or. Rapports préliminaires*, IV, avec 9 pl. et figg.

E. SCHIAPARELLI nous a enfin donné l'édition si longtemps attendue de sa découverte de la tombe de Kha à Deir el Medineh: La tomba intatta dell' architetto Cha, nelle necropoli di Tebe. *Relazione sui lavori della Missione archeologica italiana in Egitto (anni 1903–1920)*, vol. II, Turin.

*Nubie et Soudan*. Le dernier rapport sur l'Archaeological Survey of Nubia, dont l'impression avait été commencée en 1913, vient enfin de paraître, nouveau témoignage de l'extrême conscience de l'œuvre exécutée par REISNER et FIRTH: C. M. FIRTH, *The Archaeological Survey of Nubia. Report for 1910–1911*, Cairo.

F. Ll. GRIFFITH continue ses rapports: *Oxford Excavations in Nubia*, §§ 49–55, dans Liverpool *Annals*, XIV, 57–116, pl. xl—lxxx; compte-rendus des paragraphes antérieurs par A. WIEDEMANN, dans *O.L.Z.*, XXX, cols. 168–9 et 479–81. Voir aussi *A.J.A.*, XXXI, 361–2.

Les fouilles de H. JUNKER à Ermenne sont l'objet de compte-rendus de H. BONNET, *D.L.Z.*, XLVII, no. 52, et de F. Ll. GRIFFITH, dans *Journal*, XIII, 272–4; celles de Toschke par le même, *ibid.* 275–6.

Encore un mémoire sur des fouilles déjà anciennes: ORIC BATES et DOWS DUNHAM, *Excavations at Gammai*, dans *Harvard African Studies*, VIII, 1–121, 72 pl. et 3 cartes: Gammai est situé à la 2e cataracte du Nil au sud de Wady Halfa.

PUBLICATIONS DE TEXTES.

Signalons d'abord une réédition: KURT SETHE, *Urkunden der 18. Dynastie*, I. Zweite, verbesserte Auflage. *Urkunden des ägypt. Altertums.* 4e Abteilung. Heft 1. Une rapide collation m'a montré des modifications aux pages 15, 16, 17, 18, 19, 20, 23, 25, 32, 33, 34, 38, 40, 41, 42, 46, 48, 54, 55, 57, 58, 65, 68, 71, 74, 75 et 78.

(*a*) *Sites en Égypte.*

*Médamoud.* Un nouveau rapport de l'abbé E. DRIOTON, *Médamoud, Les Inscriptions*, dans *Fouilles de l'Inst. fr. d'arch. or. Rapports préliminaires*, IV, avec 3 planches: plan des inscriptions, relief des chanteuses et relief des musiciens. Une introduction résume les renseignements fournis par les textes, notamment sur la théologie de Mentou, le taureau sacré et les guérisons, les fêtes du temple, etc. Notons les statues de Maanakhtef et de Minmosé, cette dernière avec le texte historique relatif aux campagnes de Thoutmès III.

*Mîtrahîna.* BATTISCOMBE GUNN, *The Stele of Apries at Mîtrahîna*, dans *Ann. Serv.*, XXVII, 211–37 avec 1 pl., donne enfin une édition soignée de la stèle d'Apriès, connue dès 1859 et qui se rattache par son style et son contenu à la série des décrets de l'Ancien Empire.

*Nauri.* Qui croirait qu'il existe encore de grands textes historiques gravés sur des rochers le long du Nil? Voir cependant l'édition par F. Ll. GRIFFITH d'une longue inscription: *The Abydos Decree of Seti I at Nauri*, dans *Journal*, XIII, 193–208 avec les pl. XXXVII—XLIII. En appendice on trouvera une nouvelle traduction du décret de Ramsès III à Éléphantine.

*Sauiet el Meitin.* H. KEES, *Ein Klagelied uber das Jenseits*, dans *Ä.Z.*, LXII, 73–9 et 2 figg., édite et commente une inscription, d'une tombe de la XIXe dynastie, accompagnant une scène de funérailles.

*Thèbes.* G. LEFEBVRE, *Les Colonnes de l'hypostyle du temple de Khonsou*, dans *Ann. Serv.*, XXVI, 1926, 139–47, publie les textes qui démontrent les empiétements de pouvoir de Herihor, travaillant théoriquement sur les ordres de Ramsès XI.

G. LOUKIANOFF, *Un troisième texte du Poème de Pentaour sur la face ouest du temple de Louxor*, dans le *Bull. de l'Institut d'Égypte*, IX, 57–66, a découvert quelques fragments d'une version du fameux texte poético-historique, suffisants pour combler quelques lacunes.

Plusieurs compte-rendus ont été publiés au sujet de l'édition par N. de G. DAVIES et A. H. GARDINER de la tombe de Huy: S. A. B. MERCER, dans le *J.N.O.R.*, XI, 156; W. R. DAWSON, dans le *Asiatic Review*, XXIII, 324; W. WRESZINSKI, dans *O.L.Z.*, XXX, col. 161–2. Du même auteur *O.L.Z.*, XXX, col. 96–7, un compte-rendu de N. DE G. DAVIES, *The Tomb of two sculptors at Thebes.*

Le Metropolitan a publié le cinquième et dernier volume de l'admirable série consacrée à la mémoire de Robb de Peyster Tytus: N. DE G. DAVIES, *Two Ramesside tombs at Thebes. Robb de Peyster Tytus Memorial Series*, V. Il s'agit de l'édition faite suivant le modèle adopté des tombes d'Userhet (no. 51) et d'Apy (no. 217). Voir *B.M.M.A.*, XXII, 262–3.

Le P. DHORME, dans la *Revue biblique*, 153, signale l'ouvrage de L. Speleers sur les textes des Pyramides. L'auteur dans la *Rec. des Études anciennes*, 221–2, répond à certaines critiques de Montet.

(*b*) *Musées divers.*

*Berlin.* A. SCHARFF, *Ein Denkstein der römischen Kaiserzeit aus Achmim*, dans *A.Z.*, LXII, 86–107, publie, traduit et commente la stèle no. 22489 récemment acquise et qui date de l'époque d'Hadrien. Elle donne la série des divinités d'Achmim, puis l'énumération pompeuse des titres religieux très intéressants du défunt, sa biographie élogieuse conventionnelle, l'appel aux scribes appelés les ouvriers de Thot et l'équipe de l'Ibis, enfin un chant du harpiste vantant le défunt.

*Caire.* J. ČERNÝ, *Quelques Ostraca hiératiques inédits de Thèbes au Musée du Caire*, dans *Ann. Serv.*, XXVII, 183–210; G. DARESSY, *Quelques Ostraca de Biban el Molouk*, ibid., XXVII, 161–82, étudient plusieurs textes de la nécropole thébaine. Le plus curieux est sans doute celui qui nous montre le tribunal des ouvriers exerçant ses fonctions. Il serait intéressant de savoir où se trouvent conservés les ostraca Carnarvon cités dans la note de la p. 203.

Une œuvre capitale, accueillie avec faveur par les égyptologues, est le *Catalogue des Papyrus hiératiques du Musée du Caire*, dont le premier fascicule a paru. L'auteur WALDEMAR GOLENISCHEFF nous donne d'abord les textes religieux: Prières à différentes divinités à noms bizarres pour procurer bon accueil auprès d'Osiris *Ikbwy*; Le livre égyptien "Que mon nom fleurisse" (Livre deuxième des respirations); Textes du Livre des Morts, chap. 27, 135 et 182 accompagnés de textes nouveaux; Recueil d'incantations pour le salut du roi pendant les douze heures de la nuit; Fragments de prières pour le salut du roi, et pour "celui qui est sur sa couche"; Rituel des Offrandes à Amenhotep Ier; partie d'un rituel de Sokar-Osiris; Décrets d'Amen; Décret rédigé au nom de trois hypostases de Montou et Rituel d'"Ouverture de la bouche."

A. H. GARDINER, *An administrative letter of protest*, dans le *Journal*, XIII, 75–78, reprend l'étude de la lettre de l'Ancien Empire trouvée à Saqqarah.

Publication par H. JUNKER d'une stèle provenant des fouilles du Gîzeh et conservée sans doute au Caire (?): *Die Stele des Hofarztes 'Irj*, dans le *Ä.Z.*, LXIII, 53–70 et pl. ii. Voir plus loin.

G. LEFEBVRE, *Stèle de l'an V de Méneptah*, dans *Ann. Serv.*, XXVII, 19–30 avec 2 pl., publie après trente-cinq ans de disparition au fond d'un canal, le texte de la stèle dite d'Athribis et qui est une des sources historiques du règne de Méneptah. La stèle est entrée maintenant au musée du Caire.

G. LEFEBVRE, *Sur l'âge du grand prêtre d'Amen Bakenkhonsou*, dans *R.É.A.*, I, 138–43, publie et commente le texte de la statue no. 42155 du Caire précisant certains points de la biographie du grand prêtre dont la statue de Munich a donné le *curriculum vitæ*.

Signalons ici les études de H. SOTTAS, *Sur trois fragments d'un double de la pierre de Rosette provenant d'Éléphantine*, *Mémoires de l'Académie des Inscriptions*, XIII, ii, Paris, 1927, et *Notes complémentaires sur le décret en l'honneur de Ptolémée IV*, dans la *Revue de l'Égypte ancienne*, I, 230–42, et le compte-rendu par H. O. LANGE, dans *O.L.Z.*, XXX, col. 248 des *Beitrage* de SPIEGELBERG (1925).

W. SPIEGELBERG, *Ein zweites Exemplar des Dekretes des Haremheb aus Abydos*, dans *O.L.Z.*, XXX, col. 329 a identifié le fragment de LACAU, *Stèles*, no. 34162.

*Edinburgh.* Un papyrus de basse époque "Que mon nom fleurisse," dans W. R. DAWSON, *On two Egyptian Mummies...*, dans les *Proceedings of the Society of Antiquaries of Scotland*, I (1926–7), 293–4.

*Leningrad.* Je regrette de ne pouvoir dire avec précision ce que contient le Papyrus Prachow, publié sous le nom de B. Turaieff en 1927 par l'Académie de Leningrad. Photographies indistinctes d'une écriture hiératique anormale thébaine. Sans doute une pièce du dossier de la nécropole thébaine à la fin du nouvel empire.

*San Francisco.* H. F. LUTZ, *Egyptian Tomb Steles and Offering Stones of the Museum of Anthropology and Ethnology of the University of California.* (*University of California Publications. Egyptian Archaeology*, IV.) Leipzig, Hinrichs, 1927, publie un catalogue très sommaire, avec Indices des Stèles et Tables d'offrandes provenant des fouilles de Reisner à Gîzeh, Naga ed Der et Der el Ballas conservées au Musée de l'Université à San Francisco. Quarante-neuf planches, dont deux en couleurs, apportent de nombreux matériaux d'étude. A signaler pour leur beauté artistique les "pancartes" de *Wp-n-nfrt*, de *Nfr* et de *Ḥwfw-nḫt*.

## HISTOIRE.

Traités généraux. Je n'ai pas vu P. BOSCH GIMPERA, *Historia de Oriente* publiée à Barcelone. D. DAVIDSON, *A connected History of Early Egypt, Babylonia and Central Asia*, Leeds, 1927, est un livre formidable, plein de révélations pyramidales que les simples méthodes de critique historique ne réussiront jamais à égaler.

DONALD A. MACKENZIE a écrit un charmant petit livre pour la jeunesse sous le titre de *The Story of Ancient Egypt*, Londres, 1927. Mais pourquoi a-t-il permis à son éditeur de reproduire sur la couverture une épouvantable caricature de l'art égyptien et des hiéroglyphes?

TONY SEVERIN publie à Liège une seconde édition de son *Histoire ancienne de l'Orient*, augmentée de "Lectures" accompagnant chacun des chapitres.

A signaler de nombreux compte-rendus de divers ouvrages: J. H. BREASTED, *Histoire de l'Égypte* (1926) par *E. C.*, dans *La Revue belge*, 1er nov. 1927, IV, 287–8; ÉMILE SUYS, *Hommes et choses d'Égypte*, dans la *Revue catholique des idées et des faits*, 7e année, 1927, 7–9; J. NIPPGEN, dans l'*Ethnographie*. N.S. 15 avril—15 déc., 1927, 131–2.

*The Cambridge Ancient History*, I, par JEAN CHARLES, dans *Babyloniaca*, IX, 1926 (1927), 227–31; t. I à V par G. RADET, dans la *Revue des Études anciennes*, 1927, 319–25; t. III—IV par EHRENBERG, dans

*Historische Zeitschrift*, 136 (1927), 168 et D. C. MacGregor, dans *The English Historical Review*, 42 (1927), 414–6. Le premier volume des planches, préparé par C. T. Seltman, a paru à Cambridge, 1927. On peut douter que les lecteurs de l'histoire se déclarent satisfaits de l'illustration qui leur est donnée. En tous cas pour l'Égypte on ne les a guère favorisés.

G. Fougères, G. Contenau, etc., *Les Premières Civilisations*, par U. Ph. Boissevain, dans *Museum*, xxxiv (1927), 303–5; par A. Jardé, dans la *Revue de synthèse historique*, déc. 1927, 79; R. Lautier, dans la *Revue historique*, sept. 1927, 143–5; G. Smets, dans la *Revue belge de philologie et d'histoire*, vi (1927), 357; U. Kahrstedt, dans *Historische Zeitschrift*, cxxxvi (1927), 535; Besnier, dans la *Revue des questions historiques*, lv (1927), no. 2; A. Vincent, dans la *Revue des questions historiques*, lv (1927), 423; John A. Maynard, dans le *J.S.O.R.*, xi (1927), 154; E. B. Allo, dans la *Revue des sciences philosophiques et théologiques*, juillet 1927, 342–4; A. Merlin, dans le *Journal des Savants*, 1927, 39–42, et enfin le *J.R.A.S.*, 1927, no. 1.

E. G. Klauber et C. F. Lehmann-Haupt, *Geschichte des alten Orients*, 3e édit. 1925, par F. Schachermeyr, dans *Z.D.M.G.*, lxxxi (1927), 284–7; A. Moret et G. Davy, *From Tribe to Empire*, Londres (1926), par S. A. B. Mercer, dans le *J.S.O.R.*, xi (1927), 79–80.

A. Moret, *Le Nil et la civilisation égyptienne*, par B. van de Walle, dans le *Bull. bibliographique et pédagogique du Musée belge*, 1927, 101–5; P. L. Couchaud, dans le *Mercure de France*, 15 mars 1927, 687; A. Vincent, dans la *Revue des questions historiques*, lv (1927), 429; R. Maunier, dans la *Revue d'ethnographie et des traditions populaires*, vii (1926), 298–9; A. Wiedemann, dans *Archiv für Orientforschung*, iv (1927), 30; L. Speleers, dans la *Revue belge de philologie et d'histoire*, vi (1927), 845–7; P. Durandin, dans *La Géographie*, 1927, 339; H. Gauthier, dans le *Bulletin de la Société royale de géographie d'Égypte*, xiv (1927), 212–4; G. Radet, *Revue des études anciennes*, 1927, 74–6; R. Weill, dans la *Revue critique d'histoire et de littérature*, xciv (1927), 390–7. La traduction anglaise a paru à Londres en 1927 sous le titre: *The Nile and Egyptian Civilization*.

B. Portner, *Geschichte Aegyptens in Charakterbildern* (1926), par R. Anthes, dans *O.L.Z.*, xxx (1927), col. 160; A. Scharff, dans *D.L.Z.*, xlviii (1927), 470–1; W. Spiegelberg, *Historische Zeitschr.*, cxxxvi (1927), 608.

A. Rostovtzeff, *History of the Ancient World* (1926), par Norlund, dans *Historisk Tidsskrift*, 9e série, v (1927), 486.

F. Schubart, *Von der Flugelsonne zum Halbmond* (1926), par M. Blanckenhorn, dans *Petermann's Mitteilungen*, lxxiii (1927), 113; Fr. Geyer, dans les *Mitt. a. d. hist. Lit.*, nouv. série, xv (1927), 213 et s.; A. Scharff, dans *O.L.Z.*, xxx (1927), col. 560–1.

G. Sergi, *Le prime e le più antiche civiltà* (1926), par G. Furlani, dans *Aegyptus*, viii (1927), 178–88.

A. Weigall, *A History of the Pharaohs*, i (1925), par C. J. Kraemer, jun., dans *Classical Weekly*, xx (1927), 176; par W. v. Bissing, dans *B.P.W.*, xlvii (1927), col. 21–2. Le deuxième volume: *The Twelfth to the Eighteenth Dynasties*, a paru à Londres en 1927. On en trouvera un compte-rendu par S. A. B. Mercer, dans *J.S.O.R.*, xi (1927), 239–40.

Nouvel Empire. F. Bilabel a publié un important volume sous le titre de: *Geschichte Vorderasiens und Aegyptens vom 16.–11. Jahrhundert v. Chr.* (*Bibliothek der Klassischen Altertumswissenschaft*, 3, Heidelberg, 1927. L'ouvrage est divisé en deux parties: l'exposé historique d'abord, comprenant 203 pages dont l'histoire d'Égypte de la p. 13 à la p. 133. Ensuite des recherches de détail qui occupent près de trois cents pages où les égyptologues trouveront beaucoup à glaner et à discuter.

John A. Wilson, *The texts of the battle of Kadesh*, dans l'*A.J.S.L.*, xliii (1927), 266–87, publie un résumé de sa dissertation sur la bataille de Kadesh, en promettant pour bientôt une édition plus complète avec notes critiques et explicatives.

Un poème conservé par un ostracon de Turin permet à W. Spiegelberg, *Die ersten Regierungsjahre Ramses IV*, dans *O.L.Z.*, xxx (1927), col. 73–6, de démontrer que les quatre premières années du règne de Ramsès IV ont été une période de guerre civile. Le poème célèbre le retour à l'ordre et l'amnistie accordée par le roi.

Divers compte-rendus: de A. M. Blackman, *Das hunderttorige Theben* (1926), par E. Kornemann, dans *Vergangenheit und Gegenwart*, xvii (1927), 166; de Jean Capart et M. Werbrouck, *Thèbes. La Gloire d'un grand passé* (1925), par R. Enking, dans *Literarisches Zentralblatt*, lxxviii (1927), 137 et s.; par N. Reich, dans *J.A.O.S.*, xlvii (1927), 270–1; de G. Steindorff, *Die Blütezeit des Pharaonenreiches* (1926), par F. W. von Bissing, dans *B.P.W.*, xlvii (1927), col. 51–4; H. P. Blok, dans *Archiv für Orientforschung*, iv (1927), 110–11; W. Czermak, dans *W.Z.K.M.*, xxxiv (1927), 146 et s.; par H. R. Hall,

dans le *Journal*, XIII, 1927, 130–1 ; S. LAUDERSDORFER, dans *Bayerisches Blatt f. d. Gymn. Schulw.*, LXIII (1927), 174 ; A. MORET, dans la *Rev. critique d'hist. et de litt.*, XCIV (1927), 401 ; W. SPIEGELBERG, dans *O.L.Z.*, XXX (1927), col. 160–1 ; et dans *Wiener Blatt fur d. Freunde der Antike*, V (1927), 125.

*Période d'Amarna.* G. VAN DER LEEUW, *Achnaton.* Een religieuse en aesthetische Revolutie in de veertiende Eeuw voor Christus, Amsterdam, 1927, résume aussi exactement que succinctement toute la crise du règne d'Aménophis IV.

A. H. SAYCE, *The Hittite Correspondence with Tut-ankh-Amen's widow*, dans *A.E.*, 1927, 33–5 et 1 fig., donne une nouvelle traduction de la correspondance échangée entre la reine d'Égypte, S-ankh-Amen (Onkhes en Amen) et le roi des hittites Subbiluliumas. (Petrie dans une courte note écrit : " Onkhes en amen, afterwards named Onkhes-en-aten...." C'est évidemment le contraire qu'il a voulu dire.)

P. HIPPOLYTE BOUSSAC, *Some historic paintings of the reign of Tut-ankh-Amen*, dans *Art and Archaeology*, XXIV (1927), 151–8 avec 9 fig., aurait bien fait de dire que la tombe de Huy dont il reproduit quelques croquis a été publiée par l'Egypt Exploration Society, *The Theban Tombs Series*, IV, 1926, où l'on trouvera des planches donnant une idée exacte du style de ces peintures.

O. KOEFOED-PETERSEN, dans *O.L.Z.*, XXX (1927), col. 861–2, analyse l'intéressant livre de JAMES BAIKIE, *The Amarna Age* (1926).

*Basse-Époque.* H. R. HALL publie dans *The Cambridge Ancient History*, VI (1927), 137–66 et 576–7, une vue d'ensemble de l'histoire d'Égypte dans les derniers siècles précédant la conquête d'Alexandre.

THUREAU-DANGIN, dans une communication à l'Acad. des Inscr., *Compte-rendus* 1927, 198, signale la découverte à Tell-ahmar (Til-Barsip) sur la rive gauche de l'Euphrate, des fragments d'une stèle d'Ésarhaddon érigée vers 670 av. J.-C. On y voit deux captifs, dont l'un est le fils de Taharqa.

Les égyptologues seront reconnaissants à EDWYN BEVAN de leur avoir donné une nouvelle histoire d'Égypte sous la dynastie ptolémaique : *A history of Egypt under the Ptolemaic dynasty.* Londres, 1927.

*Chronologie.* Je n'ai pas vu H. BRUCE HANNAH, *Problems in ancient Egyptian Chronology*, dans le *Journ. of the Department of Letters of Calcutta*, XIV (1927), no. 4, 31 pp.

G. CONTENAU, *Chronique de la quinzaine. Archéologie*, dans le *Mercure de France*, 15 avril 1927, 478–85, plaide en faveur de la chronologie brève. Je n'ai pas vu non plus L. DELAPORTE, *Projets d'articles du vocabulaire historique. Chronologie*, dans la *Rev. de synthèse historique*, décembre 1927, 28–31.

L. BORCHARDT, *Bemerkungen zur agyptischen Chronologie*, dans *Z.D.M.G.*, N.S., VI (1927), pp. xli—xlii, résume une conférence sur l'importance des dates de pleine lune pour la chronologie.

K. SETHE, *Die Jahresrechnung unter Ramses II und der Namenswechsel dieses Konigs*, dans le *Ä.Z.*, LXII (1927), 110–14, montre que Ramsès II comptait ses années d'après la date du couronnement ; il dégage en même temps l'argument chronologique dérivant des changements du nom du roi, sans ou avec l'ajonction setep-en-Re.

L'étude de W. STRUVE, *Die Ära ἀπὸ Μενόφρεως und die XIX. Dynastie Manethos*, dans le *Ä.Z.*, LXIII (1927), 45–50, cherche par une série d'habiles conjectures à identifier Μενόφρης, corrigé en Μενόφθης, avec Seti I Merneptah. Le résultat confirmerait une fois de plus l'exactitude des listes de Manéthon et fixerait une nouvelle date Sothiaque.

R. WEILL, *Bases, méthodes et résultats de la chronologie égyptienne* (1926), est l'objet de compte-rendus de E. CAVAIGNAC, dans la *Revue des études anciennes*, 1927, 325–6 ; de G. CONTENAU, dans *Syria*, VIII (1927), 353–4 ; de M. A. MURRAY, dans *A.E.*, 1927, 104–5 (critique vigoureuse).

CH. LEGRANGE, *Leçons sur la parole de Dieu*, III, 1ère partie. *Chronologie des peuples anciens*, Bruxelles, 1927, est un exemple troublant de mystique moderne.

A. CALDERINI publie dans *Aegyptus*, VIII (1927), 381, un compte-rendu de W. KUBITSCHEK, *Grundriss der antiken Zeitrechnung*, Munich, 1927.

*Civilisation.* Je groupe sous cette rubrique quelques travaux donnant des vues d'ensemble ou des aperçus particuliers sur la civilisation égyptienne et difficiles à classer sous d'autres titres.

ER. BRECCIA, *La schiavitù nell' antico Egitto e i suoi rapporti con lo sviluppo della civiltà egiziana*, dans le *B.S.R.G.E.*, XV (1927), 71–5, montre parfaitement que l'esclavage égyptien présente un caractère très particulier, nullement comparable à l'esclavage dans l'antiquité classique.

Je n'ai pas vu E. CAVAIGNAC, *La Vie d'un égyptien il y a 5000 ans*, dans le *Larousse mensuel*, janvier 1927, 331–2 avec 2 fig. ; ni J. B. CROUZET-BEN-ABEN, *Le Féminisme dans l'anc. Égypte*, dans la *Revue Universitaire*, Paris, 1927, 159–60.

J'avoue ne pas avoir eu le courage de suivre les hautes considérations philosophiques du DR. VIKTOR ENGELHARDT, *Geschichte der geistigen Kultur*, II. *Die geistige Kultur Aegyptens, Babyloniens und Judas*,

Leipzig, 1927 (Égypte, pp. 9–81). Des notes telles que: "pour les mathématiques égyptiennes, voir toutes les grandes histoires des mathématiques; pour l'astronomie égyptienne, voir toutes les grandes histoires de l'astronomie et des sciences naturelles" sont un peu déconcertantes.

Les égyptologues parcourront avec surprise et étonnement le gros livre de DONALD A. MACKENZIE, *Ancient Civilizations, from the Earliest Times to the Birth of Christ*, Londres, 1927. Combien de livres doivent-ils éditer avant que le public abandonne certaines notions qui lui sont libéralement distribuées dans cet ouvrage comme des certitudes scientifiques? Je recommande finalement comme typiques, les pp. 35 à 40. Ce sont les idées défendues par ELLIOT SMITH, *Egypt, the pioneer of civilisation*, résumées dans le *J.M.E.O.S.*, XIII (1927), 9–10. On a peine à croire que l'humanité ignorerait le métier de charpentier si les Égyptiens n'avaient eu la pensée de faire des cercueils pour leurs morts.

On lit avec plaisir les livres de HAROLD PEAKE et HERBERT J. FLEURE, *Peasants and Potters*; *Priests and Kings* (*The Corridors of Time*, t. III et IV), Oxford, 1927, pleins de faits, de remarques et de suggestions, mais supposant résolus la plupart des problèmes que font surgir les découvertes archéologiques récentes. L'illustration est intéressante. A signaler dans *Priests and Kings*, le fig. 10, p. 31, photographie du fameux papyrus de Kahun décrivant le lever héliacal de Sirius sous Senusret III.

M. A. MURRAY, *Notes on some genealogies of the Middle Kingdom*, dans *A.E.*, 1927, 45–51, discute le problème des mariages consanguins, prouvés par les généalogies.

La coutume de porter la barbe est étudiée savamment par HUGO MÖTEFINDT, *Studien über Geschichte und Verbreitung der Barttracht*, dans *Anthropos*, XXII (1927), 828–64 (*Égypte*, pp. 842–54).

L'ouvrage de W. SPIEGELBERG, *Die Glaubwürdigkeit von Herodots Bericht über Aegypten...* a paru maintenant en édition anglaise: *The credibility of Herodotus' account of Egypt in the light of the Eyptian Monuments*, with a few additional notes by the translator AYLWARD M. BLACKMAN, Oxford, 1927. Comptes-rendus par FLINDERS PETRIE, dans *Antiquity*, I (1927), 384, et par W. R. DAWSON, dans l'*Asiatic Review*, XXIV (1927), 311–12. L'édition allemande est analysée et appréciée par H. SOTTAS, dans la *Rec. critique d'hist. et de litt.*, XCIV (1927), 245–6; P. A. A. BOESER, dans *Museum*, XXXIV (1926–27), 244; H. KEES, dans *Hist. Zeitschr.*, CXXXVII (1927), col. 132; S. A. B. MERCER, dans le *J.S.O.R.*, XI (1927), 98; M. PIEPER, dans *O.L.Z.*, XXX (1927), col. 166–7; E. UNGER, dans *Forschungen und Fortschritte*, III (1927), 258.

ÉMILE SUYS a publié sous le titre de *Vie de Pétosiris, grand prêtre de Thot à Hermopolis la Grande*, Bruxelles, 1927, un résumé fort vivant des résultats principaux de la découverte de Lefebvre à Hermopolis. Un chapitre a été reproduit dans les *Études*, Paris, CXC (1927), 342–55: *La vie quotidienne dans l'Égypte pharaonique. Dans l'intimité*. Plusieurs compte-rendus ont été publiés: H. BONNET, dans *O.L.Z.*, XXX (1927), col. 938; S. REINACH, dans la *Rev. arch.*, XXVI (1927), 305; C. A. L., dans la *Semaine Égyptienne*, 1927, 17; J. VAN OOTEGHEM, dans *Humanitas*, 1927, 176–7; B. VAN DE WALLE, dans la *Rec. catholique des idées et des faits*, 1927, 9–12, et dans la *Rec. bibliographique*, Bruxelles, 1927, 411–12. Voir aussi JEAN CAPART, *Le Tombeau de Pétosiris*, dans le *Chron. Ég.*, II (1927), 111–16 avec 6 fig.

[M. WERBROUCK], *Thebe. De roem van een groot verleden aan de kinderen uitgelegd*, Bruxelles, 1927, est l'édition en langue flamande de l'album scolaire publié par la Fondation Égyptologique Reine Élisabeth.

Citons enfin quelques compte-rendus d'ouvrages plus anciens: E. A. WALLIS BUDGE, *Egypt* (1925), par W. SCHUBART dans *O.L.Z.*, XXX (1927), 240–1; G. JÉQUIER, *Histoire de la civilisation égyptienne* (1925), par P. P. SCHEBESTA, dans *Anthropos*, XXII (1927), 336; A. MORET, *Rois et dieux d'Égypte* (1925), par JOS. R. LUKEŠ, dans *B. P. W.*, 1927, 753; W. OTTO, *Kulturgeschichte des Altertums* (1925), par H. I. BELL, dans le *Journal*, XIII (1927), 125; par A. CALDERINI, dans *Aegyptus*, VIII (1927), 204–5; par H. M. R. LEOPOLD, dans *Museum*, XXXIV (1926–7), 188–9; par W. WUNDERER, dans *Bayer. Bl. f. d. Gymn. Schulw.*, LXIII (1927), 248; W. J. PERRY, *The Children of the Sun* (1923), par R. THURNWALD, dans *O.L.Z.*, XXX (1927), col. 330–3; W. RADCLIFFE, *Fishing from the earliest times* (1926), par M. A. M(URRAY), dans *A.E.*, 1927, 26–7; H. SCHNEIDER, *Kultur und Denken der alten Aegypter* (1924), par E. KORNEMANN, dans *Vergangenheit und Gegenwart*, XVII (1927), 165.

## GÉOGRAPHIE.

La carte des mines d'or de Nubie, du Musée de Turin, est reproduite dans *I.L.N.*, 28 mai 1927, no. 4597, p. 950 et 1 fig.

HENRI GAUTHIER continue avec une admirable régularité la publication de son *Dictionnaire des noms géographiques contenus dans les textes hiéroglyphiques*. Le tome IV de 𓉔 à 𓎛 comprend 226 pp. Voir un compte-rendu de H. SOTTAS, dans le *Bull. de la Soc. de linguistique*, 1927, 189–90.



FRITZ HOMMEL, *Ethnologie und Geographie des Alten Orients*, Munich, 1904–26, est l'objet de compte-rendus de V. CHRISTIAN, dans *W.Z.K.M.*, XXXIV (1927), 136–41, et de H. GAUTHIER, dans le *B.S.R.G.E.*, XIV (1927), 214–15, qui écrit: "Ce magnifique et méritoire ouvrage vient fort heureusement combler une lacune et nous donne pour la première fois un traité méthodique et complet de géographie historique de l'ancien Orient." Voir aussi S. A. B. MERCER, dans le *J.S.O.R.*, XI (1927), 245–6.

J. LOZACH, *Aviation et géographie. II. L'Observation aérienne de l'Égypte*, dans le *B.S.R.G.E.*, XV (1927), 85–94 avec 9 pl., montre les grands services que l'aviation peut rendre à la connaissance de la vallée du Nil. Je signale particulièrement la pl. VI, avec le site de la pyramide d'Abou-Roache.

Le *J.M.E.O.S.*, XIII (1927), 16–17, donne le résumé d'une conférence du DR. AYLWARD M. BLACKMAN sur *The City of Herakleopolis Magna, its Art, Literature, and Political History.*

W. SPIEGELBERG, *La Ville de Prw-nfr, dans le Delta*, dans la *R.É.A.*, I, 3–4 (1927), 215–17, rassemble sept textes relatifs à cette ville où l'on "adorait Amon-Ra, Seth et Astarté, c'est-à-dire des divinités du Nouvel Empire."

Un excellent article de G. A. WAINWRIGHT, *El-Hîbah and Esh-Shurafa and their connection with Herakleopolis and Cusae*, dans les *Ann. Serv.*, XXVII (1927), 76–104 avec 1 pl., éclaire l'histoire et la géographie de la Moyenne-Égypte.

A signaler plusieurs articles sur le Fayoum: G. HUG, *Le "Moeris," étude de géographie physique historique* (avec note complémentaire), dans le *B.S.R.G.E.*, XV (1927), 1–44, 45–50, avec 1 pl. et 1 carte; ID., *Un plan en relief du Fayoum*, ibid., 169–72, avec 2 pl.; W. M. FLINDERS PETRIE, *The Fayum lakes*, dans *Nature*, 12 février 1927, 238.

L'isthme de Suez est étudié par CL. BOURDON, *Les "routes anciennes et les pistes" dans l'isthme de Suez*, dans le *Bull. de l'Institut d'Égypte*, IX (1927), 93–104, et H. GUTHE, *Die Landenge von Sues im Altertum*, dans la *Zeitschr. des deutschen Palastina-Vereins*, L (1927), 67–92 avec 1 carte.

La région désertique de l'ouest est décrite par plusieurs auteurs: BERTELOT, *L'Afrique saharienne et soudanaise, ce qu'en ont connu les Anciens*, Paris, 1927; A. AZADIAN, *L'Oasis de Siouah et ses sources*, dans le *Bull. de l'Institut d'Égypte*, IX (1927), 105–14; G. HUG, *L'Oasis de Khargah et le désert libyque d'après un article récent*, dans le *B.S.R.G.E.*, XV (1927), 51–7; J. JOLEAUD, *Sioua, la grande oasis d'Ammon du désert libyque*, dans la *Revue générale des Sciences*, 15 mars 1927; E. STROMER, *Ergebnisse meiner Forschungsreisen in die Wüsten Aegyptens*, dans *Forschungen und Fortschritte*, III (1927), 269–70.

A citer enfin une curieuse étude de PRZYLUSKI, *Noms de villes indiennes dans la géographie de Ptolémée*, dans le *Bull. de la Soc. de linguistique*, XXVII (1927), 218–29, où l'auteur souligne les rapports avec des localités égyptiennes.

*Voyages en Égypte.* (*a*) *Anciens*: Plusieurs auteurs ont avec succès reconstitué les impressions des touristes antiques: H. IDRIS BELL, *Greek sightseers in the Fayum in the third century B.C.*, dans *Symbolae Osloenses*, fasc. V, 1927, 5 pp.; G. SEURE, *Les Impromptus touristiques aux tombeaux des rois*, dans la *Rev. des études anciennes*, XXIX (1927), 341–76 (Compte-rendu par S. REINACH, dans la *Rev. Arch.*, XXVI (1927), 305); ID., *Touristes anciens aux tombeaux des rois*, dans le *Journ. des Savants*, 1927, 168–78, 262–71, 307–8 (tirage à part, Paris, 1927).

(*b*) *Modernes.* Je me borne à enregistrer à la suite la littérature nombreuse sur ce sujet: E. ARNHOLD, *Was ich in Aegypten sah*, Breslau, 1927; P. BLUYSEN, *Sur la route des Indes en Méditerranée orientale et en Égypte*, Paris; PAUL CLOET, *Au Pays des Pharaons*, dans *Journ. des Voyages*, 15 décembre 1927; ÉT. COMBE, *Le Voyage en Orient de Hans Jacob Ammann (1612–13)*, dans le *B.S.R.G.E.*, XIV, fasc. 3–4 (1927), 173–89; ID., *Lettres de Mure, consul de France à Alexandrie, à Mgr le comte de Choiseul-Gouffier, ambassadeur de France à la Sublime Porte*, ibid., 191–207; A. DE BURBURE, *Nos premières relations avec l'Égypte*, dans le *Chron. Ég.*, II, 167–74; G. DE NERVAL, *Le Voyage en Orient*, Paris, 1927; JEHAN D'IVRAY, *En voyageant sur les bords du Nil*, dans *Sciences et Voyages*, 14 avril 1927, 8–10 avec 6 ill.; ANDOR KELEMEN, *Tut-ankh-Amen Foldjén*, Budapest, 1927; J. MEIER-GRAEFE, *Aegyptische Reise. I. Assuan*, dans *Die Neue Rundschau*, XXXVIII (1927), 277–93, chapitre détaché de son intéressant volume: *Pyramide und Tempel. Notizen während einer Reise nach Aegypten, Palastina, Griechenland und Stambul.* Berlin, 1927; E. MEYER, *Orientreise*, dans *Forschungen und Fortschritte*, III, 29–30; HANS MUCH, *Das Ewige Aegypten*, Dresden, 1927; H. TH. OBBINK, *Op Bybelsche Bodem. Egypte–Palestina–Syrie.* Amsterdam, 1927; VICTOR OTTMANN, *Das Wunderland am Nil. Eine Reise nach Aegypten und Palastina*, Berlin, 1927; RENAN, *Lettres au docteur Gaillardot*, dans la *Rev. des Deux Mondes*, 15 juillet 1927, 369–90; HANNA RYDH, *Solskrikans Land. Skildringar i ord och Bild fran det Gamla och Nya Eygypten*, Stockholm, 1927;

PAUL TRESSON, *Le Journal de voyage du Comte Louis de Saint Ferriol et la découverte de la stèle de Kouban*, dans le *Bulletin de l'Inst. fr. d'arch. or.*, XXVII (1927), 29–37 (le tirage à part porte 1926); ID., *Le voyage du Comte de Saint Ferriol à travers le désert arabique et la péninsule du Sinaï d'après son Journal inédit*, dans la *Rev. biblique*, 1 janvier 1927, 62–76; M. VALLOTON-WARNEY, *Sur une six-roues. Égypte, Syrie, etc.*, Paris, 1927.

Quelques compte-rendus: de L. DIEHL, *Sphinx-Erlebnisse, Studien und Gedanken aus meinem Aufenthalt im Lande der Wunder* (1926), par R. ANTHES, dans *O.L.Z.*, XXX (1927), col. 473–4; J. GUTHMAN, *Bilder aus Aegypten* (1925), par H. WOLF, *ibid.*, col. 565–6; ALFRED KAUFMANN, *Ewiges Stromland. Land und Mensch in Aegypten*, par A. SCHARFF, *ibid.*, col. 472 et 473, par H. O. LANGE, dans *D.L.Z.*, XLVIII (1927), 773; par J. NIPPGEN, dans l'*Ethnographie*, 1927, 135–6.

*Atlantide.* L'Atlantide et ses rapports avec l'Égypte reviennent à la mode, grâce à PAUL BORCHARDT, *Neue Beitrage zur alten Geographie Nordafrikas und zur Atlantisfrage*, dans la *Zeitschrift der Gesellschaft für Erdkunde*, 1927, 197–216. P. COUISSIN et M. DU BOS y consacrent des articles dans le *Mercure de France*, 15 février, 15 mars, 1 mai, 15 juin 1927. Voir aussi HELMUTH TH. BOSSERT, *Zur Atlantisfrage*, dans *O.L.Z.*, XXX (1927), col. 649–55.

*Relations Étrangères.* Le très important mémoire de K. SETHE, *Die Ächtung feindlicher Fürsten, Völker und Dinge auf altägyptischen Tongefässscherben des mittleren Reiches* (1926), a été l'objet de nombreux compte-rendus d'ensemble: T. G. ALLEN, *A new Example of Egyptian Magic*, dans *A.J.S.L.*, XLIV (1927), 68–9; F. LL. GRIFFITH, dans le *Journal*, XIII (1927), 274–5; T. E. PEET, dans *O.L.Z.*, XXX (1927), col. 673–6; A. SCHARFF, *Aegypten in seinen ältesten Beziehungen zum Westen und Osten*, dans *Forschungen und Fortschritte*, III, 65–6; B. VAN DE WALLE, *Les Listes exécratoires du Moyen Empire égyptien*, dans les *Annales de l'Acad. royale d'archéologie de Belgique*, LXXIV (1927), 1–14. Des études de détail sur les mêmes textes seront citées ci-dessous.

*Asie.* ALBRECHT ALT, *Die asiatischen Gefahrzonen in den Aechtungstexten der 11. Dynastie*, dans la *Ä.Z.*, LXIII (1927), 39–45, étudie les conséquences historiques des textes exécratoires pour la connaissance de l'Asie et le point réel où commençait le pays ennemi. Voir A. LODS, *Documents égyptiens sur la Palestine aux environs de l'an 2000 avant J.-C.*, dans la *Rev. d'Histoire et de philosophie religieuse*, 1927, 451–3. Voir aussi R. DUSSAUD, dans les *Compte-rendus de l'Acad. des Inscr.*, 1927, 92. L'ouvrage du même auteur, *Topographie historique de la Syrie antique et médiévale*, Paris, 1927, est particulièrement important pour les campagnes égyptiennes.

C. A. LAZZARIDÈS a publié dans la *Semaine égyptienne* une série d'études: *Aperçu sur les relations politiques de l'Égypte avec les états de l'Asie centrale à l'époque de Tel-el-Amarna*, no. 27–8, sept. 1927, 11–14 et 1 fig.; *L'Égypte ancienne. Effets de la politique égyptienne de l'époque de Tel-el-Amarna sur les relations économiques de l'Égypte avec les États de l'Asie centrale*, no. 29–30, 1er octobre 1927, 19–20; *L'Égypte ancienne. Organisation de l'empire pharaonique d'Asie à l'époque de Tel-el-Amarna*, no. 35–6, 25 novembre 1927, 17–20 et figg.

*L'Histoire du peuple d'Israel dès les origines jusqu'à l'an 70 après J.-C.*, par P. MONTET (1926), est annoncée par A. VINCENT, dans la *Rev. des questions historiques*, LIII (1927), 423.

Le problème du nom des Phéniciens a plusieurs fois occupé les égyptologues (*fnḫw*). Voir dans *Syria*, VIII (1927), 182–5, le résumé par R. D[USSAUD] de V. BÉRARD, *Le nom des Phéniciens* (1926).

G. CONTENAU, *La Civilisation phénicienne* est l'objet d'un compte-rendu par F. W. VON BISSING, dans *D.L.Z.*, XLVIII (1927), col. 1815–20.

Dans A. BARROIS, *Fouilles à Neirab*, dans la *Rev. biblique*, 1927, 257–65, est signalée la découverte de scarabées. Le *Bulletin* de L. H. VINCENT, *ibid.*, 447–78, relève à plusieurs endroits les rapports avec l'Égypte. Voir aussi du même *L'Année archéologique en Palestine*, ibid., 419–25, *les fouilles allemandes à Balata-Sichem*. Du même encore, dans *Syria*, VIII, 187–8, *fouilles de Beisan, Megiddo*, etc.

Les fouilles de FLINDERS PETRIE en Palestine sont décrite dans *Egypt over the Border*, dans *A.E.*, 1927, 1–8 et 4 fig., et dans *Palestine Treasures*, *I.L.N.*, 2 juillet 1927, no. 4602, 10–11 et fig.

G. ROEDER, *Eine agyptische Steinfigur aus Kleinasien*, dans *O.L.Z.*, XXX (1927), col. 545–8 avec 1 planche, attire l'attention sur une figurine en pierre, du moyen empire, découverte à Yakhschî Han, à l'est d'Angora, et conservée au musée de cette ville. La statuette très typique est au nom d'un Keri, fils de la dame Ity. C'est un cas intéressant à rapprocher de celui la "dame d'Adana" au Metropolitan Museum. (Remarquer la forme du crâne de Keri.) Voir sur la même statuette: T. G. ALLEN, *A middle Kingdom Egyptian Contact with Asia Minor*, dans *A.J.S.L.*, XLIII, 1927, 294–6, et p. 295 pour la découverte à Kürigin Kaleh, près de Yakhschî Han.

*Beisan.* *A.E.*, 1927, 106–8 donne un résumé précis de l'article de ALAN ROWE, *The New Discoveries at Beth-San*, publié dans *Q.S.P.E.F.*, April 1927. (Temples égyptiens des XVIII^e—XX^e dyn.) Voir aussi A. ROWE, *Canaan links with Eygpt, Crete and Cyprus: New Beisan relics*, dans *I.L.N.*, nov. 12, 1927, 856–7, et *Cult objects some 3500 years old, discovered during the excavations at Beisan*, ibid., nov. 26, 1927, 955. Les mêmes découvertes sont l'objet d'articles par le P. DHORME, *Les Fouilles de Beisan*, dans la *Rev. biblique*, 1927, 98–101 et dans *Archiv fur Orientforschung*, IV (1927), 115. (Spécialement la nécropole d'après *Museum Journal* (Philadelphia), XVIII (1927), 9–45, 25 fig. et 1 pl.)

*Byblos.* P. MONTET, *Un Égyptien, roi de Byblos, sous la XII^e dynastie.* Étude sur deux scarabées de la collection Clercq, dans *Syria*, VIII (1927), 85–92 et fig. attire l'attention sur des scarabées d'améthyste provenant sans doute de la tombe royale no. IV de Byblos. Mais pourquoi se refuser d'admettre qu'un prince de Byblos ait pris un nom égyptien? Voir P. MONTET, *Deux scarabées de la collection Clercq acquis à Gebeil par M. Péretié*, dans les *Comptes rendus de l'Acad.*, 1927, 32–3.

M. DUNAND, *La Cinquième campagne de fouilles de Byblos* (mars—juin 1926), dans *Syria*, VIII (1927), 92–104 avec pl. XXIII—XXVII, décrit les nouveaux développements dans l'exploration du temple et de la nécropole de Byblos. A signaler une inscription de Khéops et une statuette égyptienne du moyen empire (pourquoi l'auteur dit-il que c'est une statuette de femme?). Voir *Compte-rendus de l'Acad.*, 1927, 34–6. M. PILLET, *Le Temple de Byblos*, dans *Syria*, VIII (1927), 105–12, pl. XXVIII—XXX; R. DUSSAUD, *Note additionnelle*, ibid., 113–25 et fig., complètent le rapport de M. Dunand. Voir aussi S. BAROCHE, *Byblos d'après les fouilles récentes*, dans le *Larousse mensuel*, mars 1927, 360–1 avec 4 fig. Une étude critique sur la date des objets découverts dans les diverses campagnes est faite par FR. W. VON BISSING, *Die Funde in den Tempeln von Byblos und ihre zeitliche Bestimmung*, dans *Archiv fur Orientforschung*, IV (1927), 57–66.

*Mishrifé.* Au cours de ses fouilles de l'ancienne Qatna, M. DU MESNIL DU BUISSON a découvert un sphinx au nom de la princesse Ita, fille d'Amenemhet II; une statue égyptienne en albâtre, un scarabée hyksos. Voir dans *Syria*, VIII (1927), ID., *Les Ruines d'El-Mishrifé au nord-est de Homs*, 13–33, *L'Ancienne Qatna ou les ruines d'El-Mishrifé au N.-E. de Homs*, 277–301; R. DUSSAUD, *Les fouilles de Mishrifé*, 189–91. Dans les *Comptes-rendus de l'Acad.*, 1927: A. MORET, *Inscription hiéroglyphique gravée sur un sphinx trouvé à Mishrifé*, 116–7; voir aussi 111 et 136; DU MESNIL DU BUISSON, *Compte-rendu sommaire des fouilles de Mishrifé (Qatna)*, 246–54. Enfin dans *Archiv fur Orientforschung*, IV (1927), 114 et 245.

*Pitru.* Sur l'identification de ce site par G. D. Hogarth, voir M. PIEPER, dans *O.L.Z.*, XXX (1927), col. 16–17.

*Sinai.* Les fameuses inscriptions alphabétiques du Sinai ont été rapportées au Musée du Caire par les soins de K. LAKE, R. P. BLAKE et A. W. JOHNSON, *The Serabit Inscriptions*, dans les *Ann. Serv.*, XXVII (1927), 238–40. Voir aussi *A.J.A.*, XXXI (1927), 363–4; *Archiv fur Orientforschung*, IV (1927), 117.

Quelques travaux sur les problèmes soulevés par ces inscriptions: B. L. ULLMAN, *The Origin and Development of the Alphabet*, dans *A.J.A.*, XXXI (1927), 311–28; M. COHEN, *Les articles de G. Furlani, K. Sethe, H. Grimme et I. Zoller sur la question de l'écriture sinaïtique*, dans le *Bull. de la Soc. de linguistique*, 1927, 164–7; N. PETERS, *Das Sinaischriftproblem*, dans la *Theologische Zeitschr.*, XXVI (1927), 15 et s.; G. RYCKMANS, *La Mention du Sinaï dans les inscriptions protosinaïtiques*, dans le *Muséon*, XL (1927), 201–4 et 1 pl. W. SPIEGELBERG, dans le *D.L.Z.*, XLVIII (1927), col. 1441–2, écrit un compte-rendu de K. SETHE, *Der Ursprung des Alphabets*; A. VON HOONACKER, dans le *Muséon*, XL (1927), 132–4, un compte-rendu de H. GRIMME, *Die Losung des Sinaïschriftproblems* (1926).

*Crète.* H. R. HALL, *Keftiu*, dans *Essays in Aegean Archaeology presented to Sir Arthur Evans*, 31–41 avec pl. iii et iv, montre une fois de plus qu'en dépit des controverses, Keftiu signifie *premièrement* (primarily) la Crète, et que les représentations des gens de Keftiu nous montrent les Minoens de Crète à l'apogée de la splendeur de leur civilisation. Dans le même recueil, pp. 91–9 et pl. XV—XVI, T. E. PEET étudie *The Egyptian Writing-Board B.M. 5647, bearing Keftiu Names*, et montre combien cette liste de noms soi-disant Kefti donne peu de bases sérieuses pour l'étude de la langue crétoise.

H. R. HALL, *A Predynastic Egyptian Double-Axe*, reproduit pl. v du même recueil une double hache en silex provenant de Haute Égypte, et rappelle l'existence du culte de la double-hache dans l'Égypte primitive.

L'étude de A. EVANS, *The early Nilotic, Libyan and Egyptian relations with Minoan Crete* (1925), est analysée par G. FURLANI, dans *Aegyptus*, VIII (1927), 188–9.

P. CLOCHÉ, *Histoire grecque. Fouilles à Cnossos*, dans la *Rev. historique*, 1927, 87, signale les vases prédynastiques égyptiens trouvés en Crète. Voir aussi pour les rapports avec l'Égypte, M. J. MARINATOS, *La civilisation ancienne crétoise*, 1927 (en grec).

Signalons les fantaisies méditerranéennes de J. RENDEL HARRIS, *Traces of ancient Egypt in the Mediterranean* et *More about Egypt and its colonies*, dans les *Woodbrooke Essays*, nos. 1 et 6, Cambridge, 1927.

*Grèce et colonies*, dans la *Rev. historique*, janv.—févr. 1927. P. CLOCHÉ signale des ivoires égyptiens à Ialysos, des terres-cuites à Égine et un tombeau égyptisant à Stymphale.

F. CUMONT décrit les *Nouvelles découvertes à Cyrène. Le Temple d'Isis*, dans le *Journ. des Savants*, 1927, 318–22.

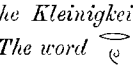
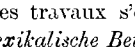
PHILOLOGIE.

Le grand développement des études de philologie égyptienne depuis plus d'une génération trouve sa codification, en quelque sorte, dans l'*Egyptian Grammar*, Oxford, 1927, publiée par ALAN H. GARDINER.

Plusieurs comptes-rendus en ont été donnés immédiatement par A. C[ALDERINI], dans *Aegyptus*, VIII (1927), 376; F. LL. GRIFFITH, dans *Journal*, XIII, 279–81; KUENTZ, dans *Bull. de la Soc. de linguistique de Paris*, XXVIII (1927); M. A. M[URRAY], dans *A.E.*, 1927, 100–1; G. ORT, dans *Syria*, VIII (1927), 255–6.

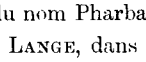
On doit regretter qu'au même moment paraissent deux grammaires destinées aux commençants et qui n'ont pu se servir de l'œuvre de Gardiner. Elles sont démodées le jour même de leur publication: SAMUEL A. B. MERCER, *An Egyptian Grammar with Chrestomathy and Glossary*, Londres, 1927. (Critique sévère par R. O. FAULKNER, dans *A.E.*, 1927, 60–1; avec réponse de J. A. MAYNARD, *ibid.*, 94–5; courte annonce par S. REINACH, dans la *Rev. Arch.*, XXVI (1927), 306), et J. FARINA, *Grammaire de l'ancien égyptien* (hiéroglyphes). Édition française par René Neuville, Paris, 1927. Compte-rendus par R. O. FAULKNER, dans *A.E.*, 1927, 60–1 et V(INCENT), dans la *Rev. biblique*, 1927, 626.

Le travail de KURT SETHE, *Die Vokalisation des aegyptischen* (1925), est annoncé par W. SPIEGELBERG, dans *O.L.Z.*, XXX (1927), col. 241–2. Deux recherches de détail de vocalisation: K. SETHE, *Die angebliche Bezeichnung des Vokals ĕ im Demotischen*, dans la *A.Z.*, LXII, 8–13 et H. GRIMME, *Ein verlorengeglaubter Laut des Altaegyptischen* (étude du son *l*), dans *O.L.Z.*, XXX (1927), col. 85–8.

Le grand dictionnaire d'ERMAN-GRAPOW, *Worterbuch der aegyptischen Sprache* (3e livraison, 1927), est l'objet de compte-rendus par A. MORET, dans la *Rev. critique d'hist. et de litt.*, XCIV (1927), 402–3 et de S. A. B. MERCER, dans le *J.S.O.R.*, XI (1927), 155–6. Voir aussi H. GRAPOW, *Das Wörterbuch der aegyptischen Sprache*, dans *Forschungen und Fortschritte*, III (1927), 127–8. W. SPIEGELBERG, *Die Konjunktion*  *ḥr rʿ* "zu der Zeit wo, wann, wenn, da, weil," dans la *Ä.Z.*, LXII (1927), 42–3; H. KEES, *Textkritische Kleinigkeiten*. I. *ḥw sḏb cc. r* "jem. verfluchen, verdammen," *ibid.*, LXIII (1928), 75–8, et B. GUNN, *The word* , *ibid.*, LXII, 1927, 83–5, précisent le sens de quelques expressions.

Quelques travaux s'occupent des rapports de l'égyptien et des langues des peuples voisins: FRIDA BEHNK, *Lexikalische Beitrage zur agyptisch-semitischen Sprachvergleichung*, dans la *Ä.Z.*, LXII (1927), 80–3; M. COHEN, *Sur le nom d'un contenant à entrelacs dans le monde méditerranéen* (*q-d*=pot), dans le *Bull. de la Soc. de linguistique*, XXVII (1927), 81–120; ID., *Du verbe tidama dans le groupe couchite* (rapports avec l'égyptien), *ibid.*, 169–200; F. LEXA, *Comment se révèlent les rapports entre les langues hamitiques, sémitiques et la langue égyptienne dans les grammaires des pronoms personnels, des verbes et dans les numéraux cardinaux 1 à 9*, dans *Philologica*, 1927; K. SETHE, *Die agyptische Ausdrücke fur "jeder" und ihre semitischen Entsprechungen*, dans *Zeitschr. für Semitistik*, V (1927), 1–5.

La brillante étude de H. GRAPOW, *Die bildlichen Ausdrucke* (1924), est encore l'objet de compte-rendus de L. B. E(LLIS) dans *A.E.*, 1927, 62 et de K. TALLQVIST, dans *O.L.Z.*, XXX, col. 935–6.

KURT SETHE, *Zum Namen Pharbaithos*, dans la *Ä.Z.*, LXIII (1928), 99, établit philologiquement le rapport du nom Pharbaithos avec .

H. O. LANGE, dans *O.L.Z.*, XXX (1927), col. 935, rend hommage à la haute valeur de K. SETHE, *Erlauterungen zu den aegyptischen Lesestücken*, Leipzig, 1927.

Ceci est plutôt une curiosité pour les égyptologues: H. QUENTIN, *Sur la forme indéclinable du mot Pharao dans les manuscrits de la Bibl. latina*, dans *Biblica*, VIII (1927), 92–4.

Pour l'histoire de la découverte des hiéroglyphes on lira avec intérêt: H. SOTTAS, *Notes complémentaires sur le déchiffrement des hiéroglyphes*, dans le *Bull. de l'Inst. fr. d'arch. orient.*, XXVII (1927), 59–78, et du même: *Un Précurseur allemand de Champollion (?)*, ibid., 83–7.

PALÉOGRAPHIE.

ED. NAVILLE, *L'écriture égyptienne* (1925), est analysé et critiqué encore par M. BOURGUIGNON, dans *Humanitas*, II (1927), 69; H. JENSEN, dans *O.L.Z.*, XXX (1927), col. 929–33; M. A. M[URRAY], dans *A.E.*, 1927, 28; H. O. LANGE, dans *D.L.Z.*, IV (1927), 2385; V[INCENT] dans la *Rev. biblique*, 1927, 625–6.

HILDA PETRIE a soigneusement rassemblé toutes les formes d'hiéroglyphes des deux premières dynasties: *Egyptian Hieroglyphs of the first and second Dynasties*, Londres, 1927.

L. KEIMER, *A Note on two hieroglyphs*, dans *A.J.S.L.*, XLIII (1927), 226–31, détermine les oiseaux représentés par  et  (voir à Science). M. PILLET, *De l'Objet représenté par le signe* , dans la *R.É.A.*, I (1927), 157–75, cherche à démontrer que le signe *mn* représente une palissade.

La récente liste des hiéroglyphes établie par ALAN H. GARDINER pour sa grammaire est imprimée sous le titre: *Catalogue of the Egyptian Hieroglyphic Printing Type*, Oxford, 1927. Voir dans *The Periodical*, XII, 1927, 14.

La curieuse étude de WON KENN, *Origine et evolution de l'écriture hiéroglyphique et de l'écriture chinoise* (1926), est l'objet de compte-rendus de B. BELPAIRE, dans la *Rev. belge de philologie et d'histoire*, VI (1926), 282–4; H. JENSEN, dans *O.L.Z.*, XXX (1927), col. 999–1000; A. UNGNAD, dans la *W.Z.K.M.*, XXXIV (1927), 146 et s. Voir aussi *Rev. biblique*, janvier 1927, 566.

H. O. LANGE, dans *O.L.Z.*, XXX (1927), col. 470, analyse la thèse de S. SCHOTT, *Untersuchungen zur Schriftgeschichte der Pyramidentexte* (1926), qui se rapporte plus au procédé de composition qu'à l'histoire de l'écriture.

Signalons la nouvelle édition des deux premiers volumes de G. MÖLLER, *Hieratische Paläographie*, Leipzig, 1927.

P. A. A. BOESER, dans *O.L.Z.*, XXX (1927), col. 354–6, rend compte de W. SPIEGELBERG, *Demotica*, I (1925).

## RELIGION.

*Généralités.* Plusieurs compte-rendus ont été publiés encore de l'excellent recueil de TH. HOPFNER, *Fontes historiae*..... (1922–5), par O. C. BAYER, dans *Bl. f. d. Gymn. Schulw.*, LXIII (1927), 184; A. MORET, dans la *Rev. critique*, XCIV (1927), 197–8; dans *Wien. Bl. f. d. Freunde d. Antike*, IV (1927), 166, et dans le *Journal*, XIII (1927), 130.

Les traités généraux de ROBINSON, *An Outline Introduction to the History of Religion*, et RICHARD KREGLINGER, *L'évolution religieuse de l'humanité* (1926), sont analyses par C. CLEMEN, dans *O.L.Z.*, XXX (1927), col. 461–3.

G. RÖDER, *Die ägyptische Religion*, dans CLEMEN, *Religionsgeschichte*, 59–78 et fig. 34–48, est illustrée surtout de monuments du Musée Pelizaeus.

S. A. B. MERCER, dans *J.S.O.R.*, XI (1927), 163, analyse rapidement J. G. FRAZER, *The Worship of Nature* (1926).

WILHELM BAYER, *Die Religion der ältesten ägyptischen Inschriften*, dans *Anthropos*, XXII (1927), 404–29 et 889–910, continue sa minutieuse étude sur la religion égyptienne d'après les inscriptions des premières dynasties.

Je groupe ici un certain nombre de travaux qui touchent plus particulièrement aux aspects divers de la religion: G. W. B. HUNTINGFORD, *Further notes on Dualism in African Religions*, dans *A.E.*, 1927, 98–9; M. J. LAGRANGE, *L'Hermétisme* (origine égyptienne), dans le *Correspondant*, 1927, 648–65; JACQUES LEFRANCQ, *Notes sur les idées de vérité et de beauté dans l'ancienne Égypte*, dans la *Rev. de l'Inst. de sociologie*, VII (1927); H. SCHAFER, *Weltgebäude der alten Aegypter*, dans *Die Antike*, III (1927), 91–127 avec 46 fig.; E. SUYS, *La Religion personnelle dans l'ancienne Égypte*, dans le *Chron. Ég.*, no. 4 (1927), 145–66.

Une série de compte-rendus d'ouvrages touchant à des problèmes religieux: LORENZ DURR, *Die Wertung des Lebens im alten Testament und im antiken Orient* (1926), par GOTTFRIED QUELL, dans *O.L.Z.*, XXX (1927), col. 365–6; WILHELM ENGEL, *Die Schicksalsidee im Altertum* (1926), par H. GUNTERT, dans *B.P.W.*, 1927, col. 555–6; par A. LESKY, dans *D.L.Z.*, IV (1927), 665 et s.; par K. LATTE, dans *Gnomon*, III (1927), 252, et par H. LEISEGANG, dans *O.L.Z.*, XXX (1927), col. 464–5. La thèse de J. M. LINFORTH, *Herodotus' avowal of silence in his account of Egypt* (1924), est annoncée par WOLF ALY dans *B.P.W.*, XLVII (1927), col. 897.

Citons deux bulletins: A. CONDAMIN, *Bulletin des religions babyloniennes et assyriennes. Appendice: Égypte et Phénicie*, dans *Recherches de science relig.*, février 1927, 51–7; P. SINAVE, *Religion égyptienne*, dans *Rev. de sciences philosoph. et théol.*, juillet 1927, 340–2.

*Dieux.* Signalons d'abord un petit article, *Family-gods in Egypt*, dans *El Palacio* (Santa-Fé), XXIII (1927), 7–9. On trouvera des détails sur plusieurs dieux égyptiens dans J. G. FRAZER, *Les Dieux du ciel*, Paris, 1927. S. A. B. MERCER, *Babylonian and Egyptian Triads*, dans *J.S.O.R.*, XI (1927), 137–41, montre que la réalité pratique des triades dans la vie religieuse, à l'exception du groupe Osiris, Isis et Horus, est absolument négligeable.

Notons l'étude de LOUIS ROBERT, *Epigraphica. V. Règlement de Prière sur le culte des dieux égyptiens*, dans la *Rev. des Études grecques*, XL (1927), 220–3.

L'ouvrage de W. A. JAYNE, *The Healing Gods of ancient civilizations* (1925), est analysé par S. A. B. MERCER, dans le *J.S.O.R.*, XI (1927), 247.

THOMAS MILTON STEWART, *The symbolism of the Gods of the Egyptians and the light they throw on Freemasonry*, Londres, 1927, apprendra aux égyptologues bien des choses étranges qu'ils ignorent. Je leur signale les considérations sur le signe de vie à la page 118.

*Akephalos.* L'importante étude de K. PREISENDANZ (1926) est analysée par EITREM, dans *Gnomon*, 1927, 176 et s.; H. LEISEGANG, dans *O.L.Z.*, XXX (1927), col. 567, et M. A. M(URRAY), dans *A.E.*, 1927, 103–4.

*Bes.* FR. W. VON BISSING publie un bronze hellénistique: *Eine hellenistische Bronzefigur des Gottes Bes*, dans les *Mitteilungen des d. archaol. Inst., Athenische Abteilung*, L (1925), paru en 1927, 123–32, pl. iv—v et fig. Voir aussi C. PICARD, *Apollon, Bes et les Galates*, dans le *Bulletin du Musée d'Art et d'histoire de Genève*, V (1927), 52–63 et 3 fig.

*Hathor.* A. M. HOCART, *Phallic offerings to Hathor*, dans *Man*, XXVII (1927), 140, étudie certaines offrandes faites au temple de l'Hathor de Deir el Bahari; dans le même journal, 150–3, on trouvera un article de G. D. HORNBLOWER, *Further Notes on phallism in ancient Egypt.*

*Horus.* E. CHASSINAT, *Le Temple d'Horus Behouditi à Denderah*, dans la *R.É.A.*, I (1927), 298–308, montre que l'édifice appelé "*Mar* du roi Senousrit, que l'on appelle *Pa Ḥarbeḫouditi*" se trouvait réellement à Denderah et non à Edfou. HENRI SOTTAS ajoute quelques *Remarques complémentaires sur le dieu Harkhentekhtai*, dans le *Bull. de l'Inst. fr. d'arch. or.*, XXVIII (1927), 89–90.

*Imhotep.* Le ministre de Djeser, sous sa forme divine, est étudié par J. AVALON, *Imhotep, l'Esculape des Égyptiens*, dans *Aesculape*, fév. 1927, 36–40 avec 4 fig. Le livre de J. B. HURRY (1926) est l'objet de compte-rendus de R. ANTHES, dans *O.L.Z.*, XXX (1927), col. 937; W. F. EDGERTON, dans *A.J.A.*, XXXI (1927), 279–80; S. A. B. MERCER, dans *J.S.O.R.*, XI (1927), 157, et A. H. SAYCE, dans *Antiquity*, I (1927), 504–5.

*Isis.* L. B. ELLIS, *The Sistrum of Isis*, dans *A.E.*, 1927, 19–25, examine à propos d'un autel du musée de Nîmes, les formes tardives de la déesse et son évolution iconographique sous l'influence du christianisme.

Citons également: P. MÉDAN, *Le livre XI des métamorphoses d'Apulée. Ce qui étaient les mystères d'Isis*, Paris, 1927, et CH. PICARD, *Sur la patrie et les pérégrinations de Déméter*, dans la *Rev. des Études grecques*, XL (1927), 320–69, ce dernier contestant l'origine égyptienne de Déméter, soutenue par P. FOUCART.

*Osiris.* Les mystères, la passion d'Osiris sont des thèmes toujours repris. Voir P. CLOCHÉ, *Les religions mystériosophiques de N. Turchi*, dans la *Rev. historique*, I (1927), 103; L. DE GRANDMAISON, *Dieux morts et ressuscités*, dans les *Recherches de Science relig.*, avril 1927, 97–126. Sur J. G. FRAZER, *Atys* and *Osiris* (1926), voir G. RODET, dans la *Rev. des Études anciennes*, 1927, 76–8, et H. LEISEGANG dans *O.L.Z.*, XXX (1927), col. 1052.

La nature d'Osiris est étudiée par FRANK-KAMENETZKI, *Über die Wasser- und Baumnatur des Osiris*, dans l'*Archiv für Religionswissenschaft*, XXIV (1927), 234–43.

On trouvera plaisir et profit à la conférence d'ALEX. MORET, *La Mise à mort du dieu en Égypte*, Paris, 1927. (Fondation Frazer. Conférence 1.) Peut-être ne sera-t-on pas toujours d'accord avec l'auteur sur tous les points. Dans son compte-rendu de la *Rev. Arch.*, XXV (1927), 397–8, S. REINACH en vante "l'orthodoxie frazérienne."

*Sérapis.* A noter deux études: E. KORNEMANN, *Aus der Geburtsstunde eines Gottes* (Serapis), dans les *Mitteil. d. Schles. Gesellsch. f. Volkskunde*, 1927, 1–19; TH. ZIELIWSKY, *La Sibylle.* Trois essais sur la religion antique et le christianisme. (2e essai: Timothée et la fusion du culte d'Isis et des mystères d'Eleusis, Paris, 1927.)

*Rois.* Signalons l'important travail de J. ČERNÝ, *Le Culte d'Aménophis Ier chez les ouvriers de la nécropole thébaine*, dans le *Bull. de l'Inst. fr. d'arch. or.*, XXVII (1927), 159–203 avec 9 pl., et l'étude de A. WIEDEMANN, *Die ägyptischen Konigsgraber und ihre religionsgeschichtliche Bedeutung*, dans *Volkerkunde* (1927), 40–6 et 120–8.

G. DARESSY, *Sur le Naos de Senusret Ier trouvé à Karnak*, dans la *R.É.A.*, I (1927), 203–11 et pl. vi—vii, attribue au culte de Sesostris Ier le naos découvert par M. Pillet et déposé maintenant au Musée du Caire.

*Animaux.* L. B. ELLIS, *A Graeco-roman Apis*, dans *A.E.*, 1927, 9 et 1 fig., publie et commente une statuette découverte à Cologne.

Par l'étude des noms composés sur la forme *Ṯȝ-dieu-ʾm-w*, W. SPIEGELBERG, *Anemho (ʿn-m-ḥr), le dieu taureau d'Athribis*, dans la *R.É.A.*, I (1927), 218–20, détermine le nom de l'animal sacré "le beau de visage" du dieu *Ḥntî-ḫtî*.

A. JACOBY, *Der angebliche Eselskult der Juden und Christen*, dans *Archiv für Religionswiss.*, XXV (1927), 265 et s. est à ajouter au dossier de Seth-âne.

K. SETHE, *Atum als Ichneumon*, dans *A.Z.*, LXIII (1927), 50–3, 1 fig., publie une admirable statuette d'Ichneumon du musée de Vienne, et montre en la rapprochant de figures du naos de Saft el Henne que c'est une forme d'Atum d'Héliopolis.

CL. GAILLARD, *Les animaux consacrés à la divinité de l'ancienne Lycopolis*, dans les *Ann. Serv.*, XXVII (1927), 33–42 et 7 fig., démontre que "les animaux sacrés d'Oupouaouat, la divinité de l'ancienne Lycopolis, étaient choisis parmi les chiens errants ou demi-sauvages."

Le culte des lions à Tell Mokdam est l'objet d'un article de H. P. BLOK, *Het huis der Leeuwen in Leontopolis*, dans le *Bulletin von de vereeniging tot bevordering der kennis van de antieke beschaving*, II, no. 2, 10–13 et pl.

*L'Intermédiaire des chercheurs et curieux*, XC (1927), col. 754–5 et col. 897, recueille quelques notes sur les chats dans la religion égyptienne.

*Rituels.* H. KEES analyse critiquement dans *O.L.Z.*, XXX (1927), col. 242–4, l'étude de G. FOUCART, *La belle fête de la vallée* (1924).

H. O. LANGE, *Ein liturgisches Lied an Min*, dans les *Sitzungsb. der preuss. Akad. d. Wiss.*, XXVIII (1927), 331–8, partant de l'examen d'une stèle du musée de Parme, donne un remarquable exemple de la persistance des textes religieux des Pyramides à l'époque grecque.

SAMUEL A. B. MERCER, *Some Religious ideas in the seventeenth chapter of the Book of the Dead*, dans *J.S.O.R.*, XI (1927), 217–21, présente un essai de classification des idées religieuses contradictoires assemblées dans le chapitre XVII du Livre des Morts. E. NAVILLE, *Le Chapitre 112 du Livre des Morts*, dans la *R.É.A.*, I (1927), 245–9, critique la traduction du chapitre 112 donnée par K. SETHE. FR. W. VON BISSING, *Totenpapyros eines Gottesvaters des Amon*, dans la *A.Z.*, LXIII (1927), 37–9 et 1 pl., analyse un papyrus à vignettes du Livre des Morts, présentant de nombreuses variantes et des textes nouveaux qui demanderaient une étude approfondie.

S. R. K. GLANVILLE, *Note on the nature and date of the "Papyri" of Nakht. B.M. 10471 and 10473*, dans le *Journal*, XIII (1927), 50–6 et pl. XIX—XXI, publie la notice de deux livres des morts de Nakht, dont l'un sur vélin.

*Magie.* Dans son livre *Magie und Zauberei in der alten Welt*, Berlin, 1927, KURT ARAM consacre de nombreuses pages (153–271 avec fig. et pl.) à la magie égyptienne. L'auteur, généralement bien informé, a des remarques intéressantes et justes.

Nous devons à H. O. LANGE, *Der magische Papyrus Harris*, dans les *Publications de l'Acad. de Copenhague* (XIV, 2), une nouvelle édition du papyrus magique publié par Chabas en 1860.

E. DRIOTON, *L'Opinion d'un sorcier égyptien*, dans la *R.É.A.*, I (1927), 133–7, publie une nouvelle formule de conjuration avec menaces aux dieux qui n'écouteraient pas la voix de l'exorciste. W. R. DAWSON, *The number "seven" in Egyptian texts*, dans *Aegyptus*, VIII (1927), 97–107, a réuni tous les exemples de l'influence magique du nombre sept et de ses multiples.

Les amulettes de la boucle et de la vie, et leurs rapports originaires, sont étudiées par H. SCHÄFER, *Das sogenannte "Blut der Isis" und das Zeichen "Leben,"* dans la *A.Z.*, LXII (1927), 108–10.

La coutume de briser des vases au cours de cérémonies funéraires à caractère conjuratoire, est expliquée par de nouveaux textes découverts par S. SCHOTT, *Die Zeremonie des Zerbrechens der roten Töpfe* dans la *A.Z.*, LXIII (1927), 101, et K. SETHE, *Zu der Zeremonie der Zerbrechens der roten Töpfe*, ibid., 101–2.

Le livre de F. LEXA sur *La Magie dans l'Égypte antique* (1925) est l'objet de compte-rendus et d'analyses par E. G. ALLEN, dans *A.J.S.L.*, XLIV (1927), 66–7; H. BONNET, dans *Z.D.M.G.*, VI (1927), 177–8; P. L. COUCHAUD, dans le *Mercure de France*, 15 juin 1927, 725; W. R. DAWSON, dans *The Asiatic Review*, XXIII (1927), 668–9; C. LAGIER, dans les *Études*, CXCI (1927), 593–600; H. O. LANGE, dans la *D.L.Z.*, IV (1927), col. 346 et ss.; M. A. M(URRAY), dans *A.E.*, 1927, 27–8, et dans *Man*, 1927, 57; J. PERRAUD, dans le *Journ. Asiatique*, 1927, 320–6; N. REICH, dans *Anglican Theological Rev.*, X (1927–8), 58–9; E. REMY, dans le *Bull. bibliogr. et pédagogique du Musée belge*, 1927, 130–1; P. SINAVE, dans la *Rev. des sciences philosoph. et théol.*, 1927, 340–1; L. THORNDIKE, dans *Isis*, 1927, 450–2, et par A. WERNER, dans le *Bull. of the School of Oriental Studies*, London Institution, IV (1927), 661–3.

Le livre de H. W. OBBINK, *De magische Betekenis van den naam* (1925), est l'objet des compte-rendus de H. P. BLOK, dans *Museum*, XXXIV (1926–7), 136–7; H. BONNET, dans la *Z.D.M.G.*, VI (1927), 175–7; L. DÜRR, dans *O.L.Z.*, XXX (1927), col. 562–3, et H. RANKE, dans la *Theologische Literaturzeitung*, LII (1927), no. 2.

A. WIEDEMANN, dans *O.L.Z.*, XXX (1927), 756–7, montre le manque de compétence de KARMA, *Astrology of the ancient Egyptians*, Londres, 1924.

Voir enfin W. DEONNA, *Amulettes de l'Égypte contemporaine*, dans la *Rev. d'Ethnographie et des traditions populaires*, 1926 (tirage à part 1927), 237 à 244.

*Religion des Morts.* Je n'ai pas vu M. DE R. DINA, *La destinée, la mort et ses hypothèses*, Paris, 1927. FR. SCHMALZ, *Totenkult im alten Aegypten*, dans *Der Erdball*, I (1926–7), 241–5 avec fig., est un court article de vulgarisation.

M. WEYNANTS-RONDAY, *Paradis égyptiens*, dans le *Chron. Ég.*, III (1927), 52–77, analyse les doctrines sur les mondes mystérieux où vivaient les âmes désincarnées.

H. KEES, *Ein Klagelied über das Jenseits*, dans *Ä.Z.*, LXII (1927), 73–9, publie d'après une tombe du nouvel empire à Sauiet el-Meitin, un nouveau texte pessimiste sur l'existence d'outre-tombe.

H. P. BLOK, *Zur altägyptischen Vorstellung des Himmelsleiter*, dans *Acta Orientalia*, VI (1927), 257–69, nous apporte une étude précieuse des idées sur les échelles que le mort emploie pour escalader le ciel.

Le livre de H. KEES, *Totenglauben und Jenseitsvorstellungen* (1926), est analysé et critiqué par H. BONNET, dans la *Z.D.M.G.*, VI (1927), 179–89, et par G. RÖDER, dans *O.L.Z.*, XXX (1927), col. 933–5—celui de W. B. KRISTENSEN, *Het leven uit den dood* (1926), par MIEDEMA, dans *Museum*, XXXIV (1927), 311–2, et X. dans *Theologische Blatter*, VI (1927), 19–22—les deux ouvrages par H. ASSELBERGS, *Antieke godsdiensten*, dans *Vragen van den dag*, XLII (1927), t. à p., 8 pp.

Les statues des défunts et le rôle qu'elles jouent dans le culte funéraire sont étudiées par G. MARRO, *Il corpo e la statua del defunto nell' Egitto antico*, dans *Archivio Italiano di Psicologia*, V (1927), t. à p., 53 pp. et 4 pl. Le livre de M. WEYNANTS-RONDAY, *Les Statues civantes* (1926), est analysé par T. G. ALLEN, dans *A.J.S.L.*, XLIV (1927), 65–6; H. BONNET, dans *O.L.Z.*, XXX (1927), col. 671–2; W. R. DAWSON, dans le *Journal*, XIII, 278–9; WILLIAM F. EDGERTON, dans *A.J.A.*, XXXI (1927), 402–3; A. GOFFIN, dans la *Rev. bibliographique belge*, VIII (1927), 59–60, et M. A. MURRAY, dans *Man*, XXVII (1927), 228. Voir aussi M. STRACMANS, dans la *Rec. belge de philologie et d'hist.*, 1927, 929.

### SCIENCE.

Je citerai d'abord deux articles à portée générale: L. KEIMER, *Von der Bedeutung der Naturwissenschaften für die Aegyptologie*, dans l'*Archiv für Geschichte der Mathematik, der Naturwissenschaften und der Technik*, X (1927), 87–102 et fig.; et PERCY E. NEWBERRY, *Aegypten als Feld fur anthropologische Forschung*, dans *Der Alte Orient*, XXVII, 1927.

H. WIELEITNER, *War die Wissenschaft der alten Aegypter wirklich nur praktisch?*, dans *Isis*, février 1927, 1–28, relève ce qu'il y a d'inexact à considérer la science égyptienne comme essentiellement pratique.

*Mathématiques.* Le Papyrus Rhind et les questions qui s'y rattachent ont fait l'objet de plusieurs travaux: O. GILLAIN, *La Science égyptienne. L'arithmétique au Moyen Empire*, avec une préface de J. BOSMANS, Bruxelles, 1927 (compte-rendu de M. JACQUEMOD, dans *Aegyptus*, VIII (1927), 372–4); G. LORIA, *La loi d'évolution propre des mathématiques*, dans *Scientia*, 1927, supplément 127–37; A. REY, *Nouveau coup d'œil sur la mathématique égyptienne*, dans la *Rev. de synthèse historique*, XLIII (1927), 27–35. L'ouvrage de O. NEUGEBAUER, *Die Grundlagen der ägyptischen Bruchrechnung* (1926), est analysé par K. REIDEMEISTER, dans *O.L.Z.*, XXX (1927), col. 471–2. Je n'ai pas vu O. NEUGEBAUER, *Zur Entstehung des Sexagesimalsystems*, dans les *Abh. d. Ges. d. Wiss. zu Gottingen*, Math.-phys. Klasse, XIII, 1927.

S. R. K. GLANVILLE, *The Mathematical Leather Roll in the British Museum*, dans le *Journal*, XIII, 232–9 et pl. lviii—lxii, édite un nouveau document du nouvel empire relatif au calcul des fractions.

R. W. SLOLEY, *Note on parabolic cones* (avec remarques de Sir FLINDERS PETRIE), dans *A.E.*, 1927, 16–17, soulève un intéressant problème de géométrie.

Les questions de mécanique traitées d'intéressante manière par L. CROON, *Lastentransport beim Bau der Pyramiden* (1925), sont analysées par L. BORCHARDT, dans *O.L.Z.*, XXX, (1927), col. 757–9. Voir aussi LEFEBURE DES NOETTES, *La conquête de la force matrice animale. I. La période antique* (L'Égypte), dans la *Nature*, 15 janv. 1927, 49–55.

Le traité de A. LUCAS, *Ancient Egyptian Materials* (1926), est l'objet de compte-rendus par G. A. AUDEN, dans *The Antiquaries Journ.*, VII (1927), 336–8; dans *Antiquity*, I (1927), 497, et *A.E.*, 1927, 57–8.

G. A. WAINWRIGHT, *Obsidian*, dans *A.E.*, 1927, 77-93, donne des raisons de croire que l'obsidienne d'Égypte provient de l'Arménie.

H. GARLAND et C. O. BANNISTER, *Ancient Egyptian Metallurgy*, Londres, 1927, présentent une première ébauche d'une œuvre d'une exceptionnelle importance pour l'histoire des sciences. Voir les compte-rendus de E. THURLOW LEEDS, dans *Antiquity*, I (1927), 377-8; E. O. LIPPMANN, dans *O.L.Z.*, XXX (1927), col. 672-3; T. ERIC PEET, dans Liverpool *Annals*, XIV (1927), 119-21; dans *A.E.*, 1927, 58-9. A. LUCAS, *Copper in ancient Egypt*, dans le *Journal*, XIII, traite en particulier de la question du cuivre, aussi bien au point de vue des gisements que de l'origine de la métallurgie. Voir aussi T. A. RICKARD, *Meteoric iron in Antiquity*, dans *Man*, XXVII (1927), 79-80.

WARREN R. DAWSON, *The Substance called Didi by the ancient Egyptians*, dans le *J.R.A.S.*, juillet 1927, 497-503, propose de reconnaître dans le *didi*, si souvent discuté déjà, l'hématite de Nubie.

Dans les publications de la Berliner Gesellschaft für die Geschichte und Bibliographie des Brauwesens, 1926-7, a paru une copieuse étude sur la bière: *Bier und Bierbereitung bei den Volkern der Urzeit. I. Babylonien und Aegypten.*

C. A. MITCHELL, *Marking-ink in ancient Egypt*, dans *A.E.*, 1927, 18, communique le résultat de son étude microscopique et micro-chimique d'une marque sur un linge de momie du British Museum: ce n'est pas comme on l'avait cru, une "encre indélibile."

*Astronomie.* L. BORCHARDT et P. V. NEUGEBAUER, *Beobachtungen des Frühaufgangs des Sirius in Aegypten im Jahre 1926*, dans *O.L.Z.*, XXX (1927), col. 441-9, publient les résultats de leurs observations du lever de Sirius.

*Zoologie.* Les oiseaux du Nil continuent à former le sujet de recherches nombreuses: BENGT BERG, *Met de trekvogels naar Africa*, La Haye, 1927; R. E. MOREAU, *Birds in ancient Egypt*, dans *The Nineteenth Century and after*, CII (1927), 500-7 (également au point de vue artistique); L. KEIMER, *A Note on two hieroglyphs*, dans *A.J.S.L.*, XLIII (1927), 226-31 ( *Neophron percnopterus* L.;  *Gyps fulvus* Gm.); ID., Compte-rendu de CH. KUENTZ, *L'oie du Nil (Chenalopex ægyptiaca) dans l'antique Égypte* (1926), dans *O.L.Z.*, XXX (1927), col. 353-6.

L'Égypte est considérée dans M. JOLEAUD, *Les origines de la domestication d'après la paléontologie et l'archéologie*, dans la *Rev. d'Hist. naturelle appliquée*, Paris, 1927. Certaines espèces d'animaux sont étudiées par G. D. HORNBLOWER, *An humped Bull of Ivory*, dans *Journal*, XIII, 221-5 et pl. lv; MAX HILZHEIMER, *Dama schaeferi Hilzh.*, dans la *Zeitschr. fur Säugetierkunde*, II (1927), 68-73; M. JOLEAUD, [*La Chèvre égyptienne*], dans le *Bull. de la Soc. nationale d'acclimatation de France*, avril 1927, 49-50.

Les chevaux découverts à Saqqarah (J. E. QUIBELL et A. OLIVER, *An ancient Egyptian Horse*, *Ann. Serv.*, XXVI (1926), 172-6) sont regardés par G. GUÉMARD comme étant les fameux chevaux de Ramsès II à la bataille de Qadesh, dans le *Bull. de l'Inst. d'Égypte*, IX (1927), 130. Voir enfin R. D(USSAUD), *Les chevaux de Cilicie et les chars égyptiens au temps de Salomon*, dans *Syria*, VIII (1927), 189.

*Botanique* (y compris l'agriculture). *L'Ethnographie*, avril—décembre 1927, 1-4, publie un résumé de F. HARTMANN, *Les Enseignements ethniques qu'apporte l'étude de l'agriculture de l'ancienne Égypte.*

O. MATTIROLO, *I vegetali scoperti nella tomba dell' architetto Kha e di sua moglie Mirit nella necropoli di Tebe, dalla Missione archeologica italiana*, dans les *Atti della Reale Accad. delle Scienze di Torino*, LXI (1926), 545-68, décrit les nombreux produits végétaux découverts à Deir el Medina dans la tombe de Kha, exposée au musée de Turin.

Par G. ELLIOT SMITH, *The Beginning of Agriculture*, dans *Nature*, no. 2985, January 15, 1927, 81-2, l'origine de l'agriculture remonte à l'Égypte dont les premiers habitants ont cultivé l'orge indigène. La thèse de l'origine égyptienne est également soutenue par M. GOMPERTZ, *Corn from Egypt. The beginning of Agriculture*, Londres, 1927. Voir en outre: A. FORESTIER, *Corn in Egypt before the Pharaohs: Predynastic husbandry*, dans *I.L.N.*, no. 4582, 2 févr. 1927, 271 et fig.; H. RANKE, *Pflug (Aegypten)*, dans le *Reallexikon der Vorgeschichte*, XI (1927), 119, pl. 39; A. MORET, *Le blé il y a 50 siècles*, dans *La Nature*, 15 avril 1927 (différence spécifique entre le blé sumérien et l'égyptien); DE VARIGNY, *Blé de momie*, dans le *Chron Ég.*, no. 5, décembre 1927, 100-1 (le *vrai* blé de momie ne pousse pas).

On doit à L. KEIMER une série de travaux remarquables sur la botanique: *Le Potamogeton lucens L. dans l'Égypte ancienne.* Un exemple de tradition dans les représentations figurées égyptiennes, dans la *R.É.A.*, I (1927), 182-97 et fig.; *Papyrusstengel als Genussmittel*, dans le *J.S.O.R.*, XI (1927), 142-5; sur la culture des figues de sycomore: *Eine Bemerkung zu Amos 7, 14*, dans *Biblica* (Rome), VIII (1927), 441-4, et *Sprachliches und Sachliches zu* ϵλκω *'Frucht der Sykomore.' Eine etymologisch-archaologisch-botanische*

*Untersuchung*, dans *Acta Orientalia*, VI (1927), 288–304; sur le lotus: *Monuments de l'Égypte gréco-romaine*, dans le *J.S.O.R.*, XI (1927), 260–1. Son livre, *Die Gartenpflanzen im alten Aegypten*, est annoncé par S. A. B. MERCER, dans le *J.S.O.R.*, XI (1927), 81. Son étude, *Bemerkungen zur Schiefertafel von Hiérakonpolis*, est résumée par M. A. MURRAY, dans *A.E.*, 1927, 63.

Citons, enfin, CH. DUBOIS, *L'Olivier et l'huile d'olive dans l'ancienne Égypte*. II. (*Époque romaine*), dans la *Rev. de philologie, de litt. et d'hist. anc.*, I (1927), 7–49.

*Médecine—Anthropologie.* A signaler en première ligne une série d'intéressantes études par WARREN R. DAWSON: *Artificial deformation of the skull: a suggestion as to the origin of the custom*, dans *The Lancet*, 5 nov. 1927, 1001–2 (origine égyptienne à l'imitation du crâne d'Aménophis IV); *Early ideas relating to conception, contraconception and sex-determination*, dans *The Caledonian Medical Journ.*, XIII (1927), 296–302; *Pygmies, Dwarfs and Hunchbacks in Ancient Egypt*, dans *Annals of Medical Hist.*, IX (1927), 315–26, avec 53 fig.; *The Beginnings of Medicine: Medicine and Surgery in Ancient Egypt*, dans *Science Progress*, XXII, no. 86, october 1927, 275–84.

H. JUNKER, *Die Stele des Hofarztes 'Iry*, dans *Ä.Z.*, LXIII (1927), 53–70 et pl. ii, donne des détails intéressants sur la spécialisation de la médecine égyptienne. Voir aussi: E. N. FALLAIZE, *The Wellcome historical medical museum*, dans *Man*, XXVII, no. 69, June 1927, 100–5 et fig., et Dr. PNIOWER, *Zur Geschichte des Studiums der Medizin*, dans *Ärztliche Mitteilungen*, XXVIII (1927), 113–15. H. C. SLOMANN, *Contribution à la paléopathologie égyptienne*, dans les *Bulletins et Mémoires de la Soc. d'anthropol. de Paris*, VIII (1927), 62–86 avec 3 pl., étudie la maladie d'*Onch-Utus* de Copenhague (), qui souffrait de spondylite tuberculeuse—le cas de la Reine de Pount, luxation de la hanche—et deux cas de paralysie infantile.

Au point de vue de l'anthropologie, on consultera: W. H. WORRELL, *A Study of races of the ancient Near East*, Cambridge, 1927; compte-rendu par A. MEILLET, dans le *Bull. de la Soc. de linguistique de Paris*, XXVIII, 1927; DOUGLAS E. DERRY, *A Study of Crania from the Oasis of Siwah*, dans *Harvard African Studies*, VIII (1927), 204–22 et 3 pl.; KAZIMIERZ STOLYHWO, *Aegyptische Population von der Zeit der XVIII. Dynastie der Pharaonen in Theben*, dans les *Sitzungsb. der Anthropol. Gesellsch. in Wien* (1925–6), 1926–7, 59–60.

WARREN R. DAWSON a continué ses études précises sur les momies: *On two mummies formerly belonging to the Duke of Sutherland* (with supplementary note by M. L. TILDESLEY), dans le *Journal*, XIII, 155–61, pl. XXXVI et 1 fig.; *On two Egyptian mummies preserved in the Museum of Edinburgh*, dans les *Proc. of the Soc. of Antiquaries of Scotland*, I (1926–7), 290–6; *Making a mummy*, dans le *Journal*, XIII, 40–9 et pl. XVI–XVIII; *Contribution to the history of mummification*, dans les *Proc. of the Royal Soc. of Medicine*, XX (1927), 832–54 avec fig.

Dans ÉT. COMBE, *Le Voyage en Orient de Hans Jacob Ammann (1612–13)*, dans le *B.S.R.G.E.*, XIV (1927), 188–9, on trouvera une note curieuse sur la *Mumia*. Voir aussi A. SACH, *Autopsies performed on hundreds of Egyptian Mummies*, dans *Art and Archaeology*, XXIV (1927), 44.

La note de R. WEILL, *L'Unité de valeur*  shat *et le papyrus de Boulaq, no. 11. Précisions et rectifications*, dans la *R.É.A.*, I (1927), 243–4, est à retenir pour l'étude des questions de métrologie.

### LITTÉRATURE.

On doit à AYLWARD M. BLACKMAN une traduction de l'ouvrage fondamental d'A. ERMAN: *The Literature of the ancient Egyptians*, Londres, 1927. Compte-rendu par W. R. DAWSON, dans l'*Asiatic Review*, XXIV (1927), 308–10.

MAX PIEPER, *Die aegyptische Literatur*, Berlin, 1927, essaie de donner une vue d'ensemble de l'évolution de la littérature de l'ancienne Égypte. Voir un compte-rendu de A. CALDERINI, dans *Aegyptus*, VIII (1927), 378.

L'édition et la traduction d'A. ERMAN et H. O. LANGE du Papyrus Lansing est l'objet de compte-rendus de W. SPIEGELBERG, dans *O.L.Z.*, XXX (1927), col. 564–5, et de H. P. BLOK, dans *Museum*, XXXIV (1926–7), 229–30.

Le joli petit livre de C. ELISSA SHARPLEY, *Anthology of ancient Egyptian poems* (1925), est analysé par N. REICH, dans *J.A.O.S.*, XLVII (1927), 272–3.

H. SCHÄFER, *Holderlin und der Sonnengesang von Amarna*, dans la *Z.D.M.G.*, VI (1927), xli, résume une communication faite au Deutscher Orientalistentag, Hamburg 1926 sur l'identité d'inspiration poétique indépendante chez Aménophis IV, le psalmiste et le poète allemand.

G. RODER, *Altagyptische Erzählungen und Märchen*, Jena, 1927, est une édition illustrée de toutes les "jolies histoires" de l'ancienne Égypte. On y trouvera des récits très vivants peu connus en dehors du domaine des égyptologues. M. PIEPER, dans *O.L.Z.*, XXX (1927), col. 21–4, critique vivement ULRICH STEINDORFF, *Märchen und Geschichten der alten Aegypter* (1924).

Le livre de sagesse d'Amenemope continue à susciter toute une littérature: MAX PIEPER, dans *O.L.Z.*, XXX (1927), col. 349–52, analyse l'édition de H. O. LANGE (1925). Il place la rédaction du livre à une date récente (XXVI$^{e}$ dyn.). Voir en outre: T. LENGO, *La "Sapienza" di Amen-em-ope*, dans *Bilychnis*, XVI (1927), 372; A. MALLON, *La "sagesse" de l'égyptien Amen-em-ope et les "Proverbes de Salomon,"* dans *Biblica*, VIII (1927), 3–30; *The Wisdom of Amenemope and the Book of Proverbs*, dans l'*A.J.A.*, XXXI (1927), 363–4; L. TH. LEFORT, *St Pachôme et Amen-em-ope*, dans *Le Muséon*, XL (1927), 65–74, et compte-rendu par R. DR(AGUET), dans la *Rev. d'hist. ecclésiastique*, juillet 1927, 665.

W. O. E. OESTERLEY, *The Wisdom of Egypt and the Old Testament in the light of the newly discovered "Teaching of Amen-em-ope,"* Londres, 1927, souligne l'influence de la pensée religieuse d'Israel sur l'Égypte. Le même problème est bien indiqué par L. W. GRENSTED dans son compte-rendu de: *The Psalmists: Essays on their religious experience and teaching, their social background, and their place in the development of Hebrew Psalmody*, by H. GRESSMANN, H. W. ROBINSON, T. H. ROBINSON, G. R. DRIVER, A. M. BLACKMAN. Edited with an Introduction by D. C. SIMPSON, Oxford, 1926, dans Liverpool *Annals*, XIV (1927), 43–4.

A. MORET, *L'Éducation d'un prince royal égyptien de la IX$^{e}$ dynastie*, dans les *Compte-rendus de l'Acad. des Inscr.*, 1927, 267–79, donne une nouvelle analyse-traduction du Papyrus de Pétersbourg 1116 A, précédée d'une introduction sur l'éducation des princes et d'un exposé des conditions historiques sous le règne des héracléopolitains.

F. LEXA, *Papyrus Insinger. Les enseignements moraux d'un scribe égyptien au 1$^{er}$ siècle après J.-C.*, Paris, 1927, est la réédition annoncée depuis longtemps déjà du Papyrus du musée de Leyde.

J. ČERNÝ, *Deux nouveaux fragments de textes littéraires connus depuis longtemps*, dans la *R.É.A.*, I (1927), 221–6, avec 2 fig., a retrouvé à Turin deux fragments des textes suivants: "Conte du revenant" et "Poème sur le char du Roi." L'édition des ostraca délaissés dans beaucoup de musées est une des tâches les plus urgentes de l'égyptologie.

M. PIEPER, *Zur Datierung des Schiffsbruchigen*, dans *O.L.Z.*, XXX (1927), col. 737–8, date le conte du naufragé du commencement de la XII$^{e}$ dynastie.

A. M. BLACKMAN, *Some philological and other notes*, dans le *Journal*, XIII, 187–92, étudie les passages suivants: (1) Salutation de Dedi par le prince Ḥardedef, Westcar 7. 17 et s.; (2) le mot "pourboire" dans Westcar 11. 6 et s.; (3) le passage difficile du Eloquent Peasant B 1, 168–71, et (4) Piankhi Stele, ligne 1.

JEAN CAPART, *Le "Thème" de la bataille de Kadesh*, dans le *Chron. Ég.*, III (1927), 45–7, attire l'attention sur le problème soulevé par la découverte due à Botti d'une réplique du texte de Kadesh, s'appliquant à Thoutmès III.

## ARCHÉOLOGIE.

*Préhistoire.* L'ouvrage de J. DE MORGAN, *La préhistoire orientale* (1925–6), est l'objet de compte-rendus de U. A(NTONIELLI), dans *Historia*, I (1927), 120; de R. D(USSAUD), dans *Syria*, VIII (1927), 352–3; de A. SCHARFF, dans *D.L.Z.*, XLVIII (1927), col. 1616–20. Voir aussi *Bull. de la Soc. préhist. de France*, 1927, 386–7.

A. SCHARFF a publié dans la collection *Morgenland. Darstellungen aus Geschichte und Kultur des alten Orients*, no. 12, un excellent résumé de ce que l'on sait au sujet du préhistorique égyptien: *Grundzüge der aegyptischen Vorgeschichte*, Leipzig, 1927. Il a cependant cédé à l'illusion de croire à la continuité de civilisation entre la préhistoire et l'Égypte des premières dynasties. Résumé dans la *Z.D.M.G.*, VI (1927), XXXVIII, sous le titre: *Der heutige Stand der ägyptischen Vorgeschichtsforschung*; compte-rendu de G. RÖDER, dans *Ypek*, 1927, 105–7; de S. R. K. GLANVILLE, dans le *Journal*, XIII, 281–2; de O. MENGHIN, dans *D.L.Z.*, XXVIII (1927), col. 2547; de S. REINACH, dans la *Rev. Arch.*, XXVI (1927), 304; de P. SCHEBESTA, dans *Anthropos*, XXII (1927), 669–70.

A. SCHARFF, *Neues aus dem vor- und frühgeschichtlichen Saal der ägyptischen Abteilung*, dans les *Berliner Museen Berichte*, XLVIII (1927), 53, 56–61, et 11 fig., attire l'attention sur les acquisitions récentes du Musée de Berlin. Le même auteur donne dans *O.L.Z.*, XXX (1927), col. 6–12, un important compte-rendu de CARL SCHUCHHARDT, *Alt-Europa*, 2$^{e}$ édition, Berlin, 1926.

La préhistoire du nord de l'Afrique et ses rapports avec l'Égypte est étudiée soigneusement par E. BAUMGARTEL et F. BROTZEN, *Steinzeitliches Material aus den südlichen Mittelmeerländern im Museum für Völkerkunde*, Berlin, dans la *Praehistorische Zeitschr.*, XVIII (1927), 91–111 et pl. X—XV.

Les résultats généraux de l'exploration par L. FROBENIUS des graffiti du désert de Nubie sont exposés dans les *Mitteilungen des Forschungsinstituts für Kulturmorphologie in Frankfurt am Main*, 2e Heft, 22–30, avec fig. et 2 pl.

Le pré-chelléen d'Égypte est illustré par l'article de E. PASSEMARD, *Le Chalossien en France, en Égypte et en Syrie*, dans *Syria*, VIII (1927), 342–51; voir du même: *Mission en Syrie et au Liban*, dans le *Bull. de la Soc. préhist. de France*, janvier 1927, 70–2. Au même bulletin, 43–4, se trouve une note de OUDET, DE MORTILLET, et VIGNARD, *À propos des moyens de réalisation de certains travaux exécutés par les préhistoriques et les Égyptiens*. A. ROYER, *Au sujet de la statuette préhistorique de Savignano sul Panaro* (stéatopyge), dans *L'Homme préhistorique*, 1927, 9–23, cherche des éléments de comparaison en Égypte. *Le Bull. de la Soc. préhist. de France*, 1927, contient deux notes de M. VIGNARD, *Silex de Naghamadi* (p. 236), et *Un galet perforé de la province de Minieh* (p. 169).

HIPPOLYTE BOUSSAC, *Les Galets coloriés du Mas-d'Azil*, dans *La Nature*, no. 2760, 1 mai 1927, 385–90 et fig., s'efforce de démontrer que les fameux cailloux témoignent d'influences orientales, principalement égyptiennes, vers 2000 ans avant notre ère(?).

G. D. HORNBLOWER, *Some predynastic carvings*, dans le *Journal*, XIII, 240–6, pl. IV, fig. 1, 3–5, et pl. LXIII, publie une dent d'hippopotame sculptée en forme humaine, une autre terminée en figure d'hippopotame et un hippopotame en marbre. FLINDERS PETRIE publie *Small objects from Nagadeh*, dans *A.E.*, 1927, 14–15 et fig.

L'étude de E. NAVILLE, *L'âge du cuivre en Égypte* (1924), est analysée par H. W., dans *Isis*, décembre 1927, 545–6.

Voir enfin H. J. E. PEAKE, *The beginning of civilization*, dans le *J.R.A.I.*, LVII (1927), 19–38.

*Musées:* BERLIN. A. SCHARFF, *Neues aus dem Vor- und Frühgeschichtlichen Saal der ägyptischen Abteilung*, dans *Berliner Museen Berichte*, XLVIII (1927), 56–61, 11 fig.; *Verzeichnis der Erwerbungen vom Mai bis Oktober: Aegyptische Abteilung*, ibid., 22. H. R. HALL, *The house of the sculptor at Tell el Amarna*, dans *I.L.N.*, 19 mars 1927, 469–71, avec 13 ill., communique ses impressions en face des œuvres de l'atelier de Thoutmès. La belle Nefertiti est reproduite sous le titre: *One of the most beautiful women in history*, dans *I.L.N.*, 31 Dec. 1927, 1194. L'extraordinaire singe au nom de Nar Mer est signalé dans *Art and Archaeology*, XXIII (1927), 88; on en trouvera de belles reproductions dans H. FECHHEIMER, *Eine ägyptische Tierstatue aus der ersten Dynastie*, dans *Kunst und Künstler* (1927?), 87–8, 1 pl. et 2 fig. Voir aussi: *Z.D.M.G.*, VI (1927), XXXIX.

BOSTON. D. D(UNHAM), *New installation in the Egyptian Department*, dans le *B.M.F.A. Boston*, XXV (1927), 96–8 avec 2 fig. *Museum of Fine Arts, Boston Students' Guide to the History of Art as represented at the Museum. I. Sculpture of the Old Empire in Egypt*, 1927 (autogr.).

BROOKLYN. Une stèle d'ancien empire de Ren-n-itf-s est reproduite dans A. SUSAN HUTCHINSON, *Before movable type*, dans *The Brooklyn Museum Quarterly*, October 1927, 129.

CAIRE. *Notice sommaire des principaux monuments par les conservateurs du Musée*, Le Caire, 1927. E. VERNIER, *Bijoux et orfévreries. Catalogue général*, LXXXIV, fasc. 4, 385–519, et pl. LXXXII–CXIII.

CHICAGO. T. GEORGE ALLEN, *A unique statue of Senmut*, dans *A.J.S.L.*, XLIV (1927), 49–55 et fig., publie la très curieuse statue de Senmut, portant dans les bras la princesse Neferu-Ra, achetée par le Field Museum. Le *Handbook of the Egyptian Collection: Art Institute* (1923) de T. G. ALLEN est annoncé par H. R. HALL, dans le *Journal*, XIII, 127.

COPENHAGUE. *Ny Carlsbergfondet og dets Virksomhed 1902–27. Et Jubilæumsskrift*, Copenhague, 1927. (*Égypte*, 27 et 43–7.) M. MOGENSEN, *Fragment d'une tête du roi Kha-f-ra à la Glyptothèque Ny Carlsberg*, dans la *Revue de l'Égypte ancienne*, I (1927), 227–9 et pl. VIII.

HAMBURG. H. KOHLHAUSSEN, *Die Erwerbungen der Justus Brinkmann-Gesellschaft*, dans *Der Cicerone*, XIX (1927), 639–42, 1 fig. (p. 641 relief d'Ancien Empire, buste d'homme); R. SCHAPIRE, *Justus Brinckmann-Gesellschaft in Hamburg*, dans *Der Kunstwanderer*, IX (1927), 224–9 (palette en schiste: oiseau—figure en pâte de verre).

HILDESHEIM. G. RÖDER, *Die ägyptische Grabkammer in Hildesheim*, dans *Forschungen und Fortschritte*, III (1927), 217–18 et 2 fig.; ID., *Die Mastaba des Chemka im Pelizaeus-Museum zu Hildesheim*, Wienhausen, 1927, 16 pp. et 12 pl.

LA HAYE, *Museum Scheurleer*. H. P. BLOK et L. KEIMER, *Een aegyptische wijdingsstele uit laten tyd*,

dans le *Bull. van de vereeniging tot bevordering der kennis van de antieke beschaving*, II, no. 2, 13–16, fig. et pl., publient une stèle saite avec représentation de deux déesses du sycomore.

LEYDE. Le musée a prêté une partie de ses collections pour une exposition d'art égyptien à Amsterdam : *Gids voor de Tentoonstelling van egyptische kunst uit het Rykmuseum van Oudheden te Leiden, te houden te Amsterdam 15 maart—8 mai 1927*, Amsterdam, 1927, 28 pp. avec 8 fig.

Le volume de W. D. VAN WIJNGAARDEN, *Beschrijving...*, t. XIII, *de monumenten van het nieuwe Ryk en van saïtischen Tyd. Lykvazen en lykvazenkisten* (1926), est l'objet de compte-rendus de T. G. ALLEN, dans *A.J.S.L.*, XLIV (1927), 67–8 ; F. Ll. GRIFFITH, dans le *Journal*, XIII, 274 ; H. RANKE, dans *O.L.Z.*, XXX (1927), col. 862–3.

W. D. VAN WIJNGAARDEN, *Bestemming en herkomst van het monument van Sebekhotep IV*, dans *Oudheidkundige Mededeelingen uit 's Rijksmuseum van Oudheden te Leiden*, VIII (1927), 14–21, avec 5 fig., montre que le soi-disant autel de granit de Sebekhotep IV est plus probablement une base de naos, provenant de Coptos ou d'Akhmim.

Le musée égyptien de Leyde a célébré son centenaire : W. D. VAN WIJNGAARDEN, *Het eeuwfeest der egyptische Verzameling te Leiden*, dans *Vragen van den dag* (1927), 8 pp. (tirage à part).

LONDRES, *British Museum*. H. R. HALL, *The Head of an Old Man (no. 37883) in the British Museum*, dans le *Journal*, XIII, 27–9 et pl. XI—XII, publie et étudie un des joyaux de la sculpture égyptienne au British Museum : une tête de vieillard, peut-être saïte, peut-être plus ancienne. Le même publie une admirable tête de Thoutmès III ou d'Hatshepsout : *Head of a monarch of the Tuthmosid House in the British Museum*, ibid., 133–4 et pl. XXVII—XXX ; ainsi que trois hippopotames en faïence : *Three Hippopotamus-Figures of the Middle Kingdom*, ibid., 57–8 et pl. XXII—XXIII. M. FRÉDÉRICQ édite la série, si riche, des cuillers à fard : *The ointment spoons in the Egyptian section of the British Museum*, ibid., 7–13 et pl. III—IX.

Les belles copies de peintures thébaines exécutées par M. et Mme DAVIES pour compte de A. H. GARDINER, ont été déposées par ce dernier au British Museum : voir *Brit. Mus. Quarterly*, I (1926–7), 93–5 et pl. LII (les Kefti). Les nouvelles acquisitions sont annoncées dans la même revue, II (1927–8), 41–2 et pl. XXII (statue curieuse de Paiyempermenkh avec la main à la bouche, et ouchebti de Amenhotep-Hui), et 63–4 et pl. XXXVIII (fresque d'El Amarna), XXXIX (vases peints), XL*a* (ouchebti d'Aménophis III).

LONDRES, *University College*. W. M. FLINDERS PETRIE, *Objects of daily use* (British School of Archaeology in Egypt, t. 42), Londres, 1927, contient beaucoup d'objets exceptionnellement rares et curieux.

PARIS, *Louvre*. CH. BOREUX, *Rapport sur l'administration et la conservation des Musées nationaux pendant l'année 1926 : Département égyptien*, dans le *Journ. des Arts*, XLIX (1927), 3.

NEW YORK. L'entrée au Metropolitan Museum de la collection Carnarvon est un évènement dans l'histoire des Musées : A. M. LYTHGOE, *The Carnarvon Egyptian Collection*, dans le *B.M.M.A.*, XXII (1927), 29, 31–40 avec fig., et 62, l'indication du don merveilleux dû à la générosité de Edward S. Harkness. Voir *I.L.N.*, no. 4585, 5 mars 1927, 382–3 et fig., repris dans le *Patriote illustré*, Bruxelles, 27 mars 1927, 200–1 et fig., sous le titre : *Trente siècles de l'art de l'Égypte au Musée de New York*.

PHILADELPHIE. C. H. DAM, *The Tomb chapel of Ru-Ka-Pou, a Court official of 2650 B.C.*, dans *The Museum Journ.*, Philadelphia, XIII (1927), 188–200 et 4 fig. Voir *A.J.A.*, XXXI (1927), 473.

TURIN. C. SPELLANZONI, *Il Museo di Torino*, dans *Le Vie d'Italia e dell'America latina*, Milan, XXXIII (1927), 443–53 et fig., avec photographie de la grande stèle de Meru de la XI^e^ dynastie avec une disposition rare dans l'appel aux prêtres, prêtresses, chanteurs, chanteuses, musiciens, musiciennes et gardes du temple.

VIENNE. *Uebersicht der Kunsthistorischen Sammlungen*, Vienne, 1927, section égyptienne, 133–55 (anciennes collections et fouilles de Junker).

Quelques *catalogues de vente* contenant des objets égyptiens : *Collection of the M. D. Benzaria Company. Persian Art and Spanish Furniture*. 4–5 mars 1927, New York. *American Art Association*, 1927. *The Alphonse Kann Collection. Part I, consisting of Egyptian..... works of Art*. New York, janvier 1927 (nos. 21–55 et 17 fig.).

VERNON, ALLNUTT, TRACEY. *Catalogue of antiquities &c., including primitive implements, Assyrian sculpture....., Egyptian objects*. Londres, Sotheby. 30 mai 1927.

S. SEVADJIAN, *Dessins, aquarelles.....antiquités égyptiennes, grecques, romaines, .....composant la collection de M. S. Sevadjian*. Paris, Hôtel Drouot, 1–3 juin 1927.

M. MONDA, *Revue des ventes de Mai. Hôtel Drouot. Vente du 19 mai 1927*, dans le *Figaro artistique* du 23 juin 1927 : bois sculpté de la XVIII^e^ dynastie adjugé 46,100 frs.

M. Maraugoni, *La Collection Gualino*, dans l'*Amour de l'Art*, janvier 1927, 1 et s.: Groupe de famille d'ancien empire.

Auriant, *Les collections égyptiennes du colonel Boutin*, dans l'*Intermédiaire des chercheurs et curieux*, 10 février 1927, 90.

ART.

Helen Gardner, *Art through the ages. An Introduction to its history and significance*, Londres, 1927, où l'art égyptien trouve la place qu'il mérite dans une histoire générale de l'art (13–53 et pl. 2–18).

Je n'ai pas vu E. Marty, *Histoire universelle de l'art* (l'Égypte), Paris, 1927.

H. Martin, *L'art égyptien, l'art assyrien, l'art perse*, Paris, 1926 (la grammaire des styles), est exécuté en trois mots par H. Bonnet, dans *O.L.Z.*, xxx (1927), col. 671. Je ne connais pas A. von Salis, *Die Kunst des Altertums*, Wildpark-Potsdam, dont un compte-rendu a été donné dans *Wiener Blätter f. d. Fr. d. Antike*, iv (1927), 107. L'édition italienne de A. Springer, *Manuale di storia dell' arte*. 3e édit. I. *Arte antica*, a été publiée par Corrado Ricci, Bergame, 1927 (Égypte, 13–58 et fig.).

J. Capart, *Documents pour servir à l'étude de l'art égyptien*. I, Paris, 1927, est un grand recueil de cent planches de monuments égyptiens de valeur artistique, inconnus ou insuffisamment publiés, provenant de l'Égypte ou des musées d'Europe et d'Amérique.

La valeur absolue de l'art égyptien est exposée par H. Schafer, *Aegyptische und heutige Kunst. Zur Stellung der agyptischen in der Weltkunst*, dans *Die Antike*, iii (1927), 187–267, 4 pl. et 83 fig., et par H. Bulle, *Wertung der agyptischen Kunst*, ibid., 268–86. La question des "emprunts" et des "influences" est traitée par H. P. Blok, *Ontleening en Invloed*, Leiden, 1927. On se demande comment, à moins d'être aveugle né, on puisse écrire sur l'art égyptien dans le sens de W. Worringer, *Aegyptische Kunst. Probleme ihrer Wertung*, Munich, 1927. Voir le compte-rendu de G. Roder, dans *Ypek*, 1927, 107–10.

Les livres de F. van Goethem, *Les Symboles de l'esthétique dans l'art égyptien*, et *De Symbolen der "Wysheid" in de kunst van het Oosten*, Anvers (autographié), 1927, ne sont que des rêveries sans pertinence.

F. W. von Bissing, *Die oostersche Grondslag der Kunstgeschidenis*, est l'objet de compte-rendus de L. Keimer, dans le *J.S.O.R.*, xi (1927), 80–1, et de M. Pieper, dans *O.L.Z.*, xxx (1927), col. 244–5. Ch. Boreux, *L'Art Égyptien* (1926), est analysé ou simplement annoncé par H. Bonnet, dans *O.L.Z.*, xxx (1927), col. 245; Y. de la Brière, dans les *Études* (Paris), 20 mars 1927, 765; A. Drioton, dans le *Journ. des Savants*, mai 1927, 223–5; A. Goffin, dans la *Rev. bibliographique belge*, viii (1927), 56–7; E. Lambert, dans la *Rec. critique*, xciv (1927), 255–6, et S. Reinach, dans la *Gazette des Beaux Arts*, xv (1927), 127. Jean Capart, *Art Égyptien. Études et Histoire*, i, par N. Reich, dans le *J.A.O.S.*, xlvii (1927), 270–1. H. Bonnet, dans *O.L.Z.*, xxx (1927), col. 347–9, critique avec sympathie L. Curtius, *Die antike Kunst*, i (1923). L'ouvrage, fort bien fait, de H. Kees, *Aegyptische Kunst*, est l'objet d'un long compte-rendu critique de M. Pieper, dans *O.L.Z.*, xxx (1927), col. 856–61.

M. von Recklinghausen, *Rechtsprofil und Linksprofil in der Zeichenkunst der alten Aegypter*, dans la *Ä.Z.*, lxiii (1927), 14–36 avec 17 fig., est important pour l'appréciation du dessin égyptien. On sera reconnaissant à W. E. Ware, *Egyptian artists' signatures*, dans *A.J.S.L.*, xliii (1927), 185–207, d'avoir réuni les signatures connues d'artistes égyptiens.

L'étude d'un thème iconographique est étudié par W. D. van Wijngaarden, *Het adelaar-motief in de egyptisch-oost-aziatische cultuurwereld*, dans *Internationales Archiv fur Ethnographie*, xxviii (1927), clxxi–clxxxiii. H. Schafer, *Ein Quellenwerk zur agyptischen Flachkunst*, dans le *Repertorium fur Kunstwissenschaft*, xlviii (1927), 148–9, loue l'*Atlas* de Wreszinski.

*Arts Industriels. Céramique.* H. Frankfort, *Studies in early pottery of the near East*. II. *Asia, Europe and the Aegean, and their earliest interrelations. Royal Anthropological Institute. Occasional Papers*, no. 8. Compte-rendu par J. P. Droop, dans Liverpool *Annals*, xiv (1927), 122–3. Faut-il dire que les problèmes égyptiens sont souvent traités au cours de ces pages? Voir un long compte-rendu soulignant ces derniers dans *A.E.*, 1927, 52–7.

*Textile.* E. Flemming, *Textile Kunste, Weberei, Stickerei, Spitze. Geschichte, Technik, Stilentwickelung*, Berlin, contient un aperçu des textiles égyptiens de l'époque pharaonique et de temps plus récents (pp. 16–24, fig. 3–7, pp. 32–46, fig. 9–16, et pp. 51–3).

*Métal.* L'ouvrage de G. Moller, *Die Metallkunst der alten Aegypter* (1925), est l'objet d'un compte-rendu de C. R. Williams, dans *A.J.A.*, xxxi (1927), 134.

*Nattes.* Voir L. Keimer, *Flechtwerk aus Halfagras im alten und neuen Aegypten*, dans *O.L.Z.*, xxx (1927), col. 76–85, 145–54.

G. JÉQUIER, dans son étude *À propos de la danse des Mouaou*, dans la *R.É.A.*, I (1927), 144–51, cherche à déterminer l'origine des Kakerou.

PAUL BRANDT, *Schaffende Arbeit und Bildende Kunst im Altertum und Mittelalter*, I, Leipzig, 1927, consacre de nombreuses pages intéressantes à l'Égypte (pp. 13–50, fig. 1–49 et 1 pl. en couleurs). L'auteur a négligé de dire à qui il emprunte ses illustrations.

*Architecture.* G. JÉQUIER, *Les Temples memphites et thébains des origines à la XVIII^e^ dynastie*, 2e édition, Paris (1927), ajoute deux planches consacrées aux temples de Djeser à Saqqarah.

H. JUNKER esquisse les résultats généraux de ses études sur les mastabas de Gîzeh : *Die Entwicklung der Mastaba auf dem Graberfelde von Gise*, dans la *Z.D.M.G.*, VI (1927), xl ; *Von der agyptischen Baukunst des Alten Reiches*, dans la *Ï.Z.*, LXIII (1927), 1–14 et 1 fig.

A propos des colonnes, voir FR. W. VON BISSING, *Der Ursprung der agyptischen Pflanzensäule und der kannelierten Pfeiler*, dans *Forschungen und Fortschritte*, III (1927), 57. G. DARESSY étudie un tracé d'une voûte datant de la III^e^ dynastie, dans les *Ann. Serv.*, XXVII (1927), 157–60. R. ENGELBACH, *An Architect's project from Thebes*, dans *Ann. Serv.*, XXVII (1927), 72–5 et 1 pl., publie un ostracon de la vallée des Rois, du Musée du Caire.

Je n'ai pas vu M. POETE, *L'évolution des villes. Les villes égyptiennes*, dans la *Rev. des cours et des conférences*, Paris, 15 juillet 1927, 639–62. Citons en passant : A. FORESTIER, *Houses of Antiquity. Domestic Life in ancient Egypt, Greece and Rome*, dans *I.L.N.*, no. 4609, 20 août 1927, 308 et suppl. en couleurs. G. RODER a écrit l'article *Obelisk*, dans le *Reallexikon der Vorgeschichte*, IX (1927), 149–50 et pl. 180.

L'ouvrage de E. BAUMGÄRTEL, *Dolmen und Mastaba* (1926), est l'objet des compte-rendus de TH. DOMBART, dans *O.L.Z.*, XXX (1927), col. 94–6, et de E. KORNEMANN, dans *Vergangenheit und Gegenwart*, XVII (1927), 165 ; R. ENKING, dans *Literarisches Zentralblatt*, LXXVIII (1927), analyse J. CAPART, *L'Art Égyptien. I. L'Architecture.*

*Pyramides.* L. BORCHARDT, *Die Baugeschichte der Pyramide des Snefru bei Medum*, dans la *Z.D.M.G.*, VI (1927), XXXIX, est l'annonce d'un travail important (publié en 1928). Sur ID., *Langen und Richtungen der vier Grundkanten der grossen Pyramide bei Gize* (1926), voir FR. W. VON BISSING, dans *B.P.W.*, XLVII (1927), col. 1010–12.

G. JÉQUIER, *Les pyramides non funéraires*, dans les *Compte-rendus de l'Acad. des Inscr.*, 1927, 188–93, présente des faits de nature à reconsidérer le problème des petites pyramides dites "de reines." J. CAPART, *La Pyramide de Meidoum*, et *Autour des Pyramides*, dans le *Chron. Ég.*, II (1927), 118–22 et 129–32, sont des souvenirs et impressions de voyage.

T. ERIC PEET, *The great Pyramid: Facts and Fancies*, dans le *J.M.E.O.S.*, XIII (1927), 8–9, est un résumé de conférence. Remarquer l'hypothèse relative aux dimensions du grand passage à la pyramide de Khéops. Une polémique s'est élevée entre O. GILLAIN et P. GRAEFFE : P. GRAEFFE, *La Grande Pyramide d'Égypte. Réponse à M. O. GILLAIN*, Bruxelles, 1927 ; O. GILLAIN, *La légende de la grande pyramide d'Égypte*, dans le *Chron. Ég.*, II (1926–7), 175–9 ; P. GRAEFFE, *La grande pyramide*, ibid., III (1927–8), 86–8 ; O. GILLAIN, *De quoi confondre les sceptiques*, ibid., 88–90. K. KLEPPISCH, *Willkur oder Mathematische Ueberlegung beim Bau der Cheopspyramide?* Munich, 1927, essaie d'éclaircir le problème des rapports de nombre dans l'établissement du plan de la pyramide.

B. STEWART, *The witness of the Great Pyramid: the Anglo-Saxon race, their identity, history and destiny*, Londres, 1927, est un témoin marquant du dérèglement de pensée de certains milieux modernes. TH. MOREUX, *La science mystérieuse des Pharaons* (1925), est finement jugée par S. SCHOTT, dans *O.L.Z.*, XXX (1927), col. 561–2. Voir aussi deux notes par JOHN OWEN : *The reputation Cheops built* et *Smyth and Taylor*, dans *I.L.N.*, no. 4586, 12 mars 1927, 452 et 454.

Une note : *Archéologie de Minorque*, dans *La Géographie*, janv.—févr. 1927, 121–2, établit des comparaisons entre les talayots des Baléares et les pyramides (?).

*Sculpture.* G. RODER, *Die vorgeschichtliche Plastik Aegyptens in ihrer Bedeutung fur die Bildung des agyptischen Stils* (1926), est signalé par G. H. L. dans *L'Anthropologie*, XXXVIII (1927), 545.

Dans G. KOWALCZYK, *Decorative sculpture, with an introduction by August Köster*, Londres, 1927, les pl. i–xiv reproduisent des monuments égyptiens.

F. W. VON BISSING, *Ueber einen Kopf des Alten Reichs*, dans le *Münchner Jahrbuch der bildenden Kunst*, IV (1927), 1–7, 1 pl. et 4 fig., édite avec un copieux commentaire une tête d'ancien empire appartenant à une collection privée ; L. CHASSINAT, *Une tête de femme égyptienne de l'Ancien Empire*, Paris, 1927, présente une autre pièce. Je regrette de dire que je les considère, l'une et l'autre, comme très suspectes.

H. R. HALL attire l'attention sur la ressemblance entre la reine Tiyi et Tutankhamon : *The portrait-heads*

*of the Egyptian queen Teie and of King Tutankhamen* dans *I.L.N.*, no. 4576, 1 Jan. 1927, 26–7 et 4 fig. E. S. THOMAS, *An ethnological coincidence*, dans le *B.S.R.G.E.*, XIV (1927), 161–4 et 1 pl., attire l'attention sur les ressemblances entre les types Masai et les sculptures du groupe dit de Tanis.

M. STRACMANS résume une conférence de J. LEFRANCQ sur *L'Esthétique de la sculpture égyptienne*, dans la *Rev. belge de philologie et d'hist.*, janv.—mars 1927, 929. Les discussions de RODENWALDT (1921) et de E. LOEWY (1925), sur l'influence de l'Assyrie ou de l'Égypte sur les sculptures grecques archaïques, sont résumées dans *A.J.A.*, XXXI (1927), 485.

Une tête royale de basse époque, dans le commerce, est publiée dans *The Antiquarian Quarterly*, Londres, II (1927), 66, 1 fig.

*Reliefs.* F. W. VON BISSING, *Ueber eine Grabwand aus Memphis in München*, dans le *Münchener Jahrbuch der bildenden Kunst*, I, 1927 (!), 207–24 avec 4 fig., publie deux fragments remarquables de la fin de la XVIII^e^ dynastie, provenant de Saqqarah, et un panneau du Musée Kastner à Hanovre. Il étudie spécialement le type de la déesse du sycomore. Le même auteur: *Der Meister des Reliefs des Leidener Harmaisgrabes entdeckt?*, dans *Forschungen und Fortschritte*, III (1927), 73, attribue ces reliefs à l'auteur du tombeau d'Horemheb et l'identifie au chef de tous les artistes Amenemant.

G. ROEDER, *Die Kapellen zweier nubischer Fursten in Debod und Dakke*, dans *Klio*, XXI (1927), 447–9 (voir aussi *Z.D.M.G.*, VI (1927), xl), résume ses importantes remarques sur le dessin et l'exécution des reliefs de deux temples nubiens (l'étude complète dans la *Ä.Z.*, LXIII, 1928).

M. WERBROUCK, *Les pleureuses du tombeau de Meri*, dans la *Chron. Ég.*, III (1927), 48–51 et fig., fait connaître un des plus charmants reliefs de l'ancien empire.

Deux monuments dans le commerce: A. E. K(NIGHT), *An eighteenth-dynasty sepulchral stele*, dans *The Antiquarian Quarterly*, II (1927), 129–30 et pl. xi (coloration de Sekhmet), et *An Egyptian head of a princess. A student's trial piece*, ibid., 70 et pl. (modèle de face de reine, ép. ptolémaïque).

*Scarabées.* M. PIEPER, *Die wissenschaftliche Bedeutung der ägyptischen Skarabäen*, dans la *Z.D.M.G.*, VI (1927), xli; l'article *Skarabäen*, du même auteur, dans *Pauly-Kroll*, t. III A, col. 447–59, est l'objet d'un compte-rendu de A. WIEDEMANN, dans *O.L.Z.*, XXX (1927), col. 564.

*Armes.* F. W. KOPPERS, *The study of African bows and arrows*, dans *Anthropos*, XXII (1927), 622–4, présente de l'intérêt pour l'arc égyptien. H. BONNET, *Die Waffen der Völker des Alten Orients* (1926), est l'objet de plusieurs compte-rendus, de A. CALDERINI, dans *Aegyptus*, VIII (1927), 377–8; H. KEES, dans la *Z.D.M.G.*, LXXXI (1927), 287–90; S. A. B. MERCER, dans le *J.S.O.R.*, XI (1927), 245; G. RODER, dans *D.L.Z.*, XLVIII (1927), col. 1555–7; SIDNEY SMITH, dans le *Journal*, XIII, 277–8, et de E. UNGER, dans *Hist. Zeitschr.*, CXXXVII (1927), 130.

W. WOLF, *Die Bewaffnung des altägyptischen Heeres* (1926), est l'objet de compte-rendus de S. A. B. MERCER, dans le *J.S.O.R.*, XI (1927), 81–2; A. MORET, dans la *Rec. critique*, XCIV (1927), 401–2; RANKE, dans *Hist. Zeitschr.*, CXXXV (1927), 313; G. RODER, dans *D.L.Z.*, XLVIII, col. 1555–7, et A. WIEDEMANN, dans *O.L.Z.*, XXX (1927), col. 245–6.

*Toutankhamon.* Musée du Caire. *Notice sommaire des objets provenant de la tombe de Toutankhamon*, par les conservateurs du Musée. 2^e^ édit., Caire, 1927. Voir J. CAPART, *Les Trésors de Tout-Ankh-Amon*, dans la *Chron. Ég.*, II (1927), 103–5.

Le second volume de la narration officielle de l'exploration de la tombe a paru sous le titre: H. CARTER, *The Tomb of Tut-ankh-amen*, II, Londres, 1927. Compte-rendus dans *I.L.N.*, no. 4586, 12 mars 1927, 440 et 454; par R. C. C. CLAY, dans *Antiquity*, I (1927), 498; par W. R. DAWSON, dans *The Asiatic Rev.*, XXIII (1927), 657–65; par W. WOLF, dans *O.L.Z.*, XXX (1927), col. 1060. L'édition hollandaise porte le titre: *Het Graf van Tut-anch-Amon, ontdekt door wylen Graaf Carnarvon en Howard Carter*. Vertaling van A. Moresco, Amsterdam, 1927; l'édition allemande: *Tut-anch-Amun. Ein ägyptisches Königsgrab*. Bd. II. mit einem Beitrag: *Zur Geschichte der ägyptischen Kunst von den Anfängen bis Tut-anch-Amun* von G. STEINDORFF, Leipzig, 1927. Compte-rendus par A. SCHARFF, dans *D.L.Z.*, XLVIII (1927), col. 1761–5; par P. P. SCHEBESTA, dans *Anthropos*, XXII (1927), 1030–1. L'édition tchèque de LEXA est analysée par Jos. R. LUKEŠ, dans la *B.P.W.*, 1927, col. 753–7. Le premier volume est annoncé par N. REICH, dans le *J.A.O.S.*, XLVII (1927), 273.

Certains objets de premier ordre sont publiés dès leur arrivée au Musée du Caire dans *I.L.N.*, no. 4579, 22 janv. 1927, 117–22; no. 4583, 19 fév. 1927, 297; no. 4584, 26 fév. 1927, 348, 350–7 (les bijoux et leur disposition sur la momie); no. 4592, 23 avril 1927, 709 (le roi dans la barque), 725–31 (figures de divinités, bijoux, éventail, coffres et bateaux); no. 4604, 16 juillet 1927, 106–11 et 122 (palettes de scribe, boîtes à miroir, bijoux).

KERTOS, *Tout-ankh-Amon*, supplément du no. de juin 1927 de *L'écho de l'association des anciens élèves des frères des écoles chrétiennes*, Bruxelles, est un article de vulgarisation. *La Réincarnation de Tout-ankh-Amon*, dans l'*Illustration* de Paris, no. 4390 du 23 avril 1927, 410, est l'écho d'une fête mondaine au Caire.

Deux brèves notes sur la tombe fameuse : dans la *Rec. arch.*, XXV (1927), 229, et dans *Art and Archaeology*, XXIII (1927), 41 (sur le replacement de la momie dans le sarcophage).

*Ouchebtis*. G. DARESSY, *Deux statuettes funéraires avec inscriptions insolites*, dans la *R.É.A.*, I (1927), 212–4, donne le texte de deux ouchebtis en sa possession, au nom d'un Amenapt, avec inscriptions rappelant le chapitre V du Livre des Morts. Je signale des exemplaires analogues à Oxford, Princeton, Berlin et Bruxelles.

*Bateaux*. E. ASSMANN a écrit l'article *Schiff* (*Aegypten*), dans le *Real-Lexikon der Vorgeschichte*, XI (1927), 250–1, pl. 65 et 66. L'étude du gouvernail a été faite par W. F. EDGERTON, *Ancient Egyptian Steering Gear*, dans l'*A.J.S.L.*, XLIII (1927), 255–65. A. E. K(NIGHT), *Sea-Craft of the ancients*, dans *The Antiquarian Quarterly*, II (1927), 117–27 et fig. 77–127, est un article de vulgarisation (fig. 82–4, vases préhistoriques avec bateaux).

L'ouvrage de CH. BOREUX, *L'Art de la navigation*, est l'objet de compte-rendus de CARLINI et VIVIELLE, dans le *Journ. des savants*, novembre 1927, 385–93 ; de S. R. K. GLANVILLE, dans le *Journal*, XIII, 122–4.

A. KÖSTER, *Seefahrten der Alten Aegypter* (*Meereskunde*, XIV, 9) (1925), est annoncé par R. HENNIG, dans *Petermann's Mitteilungen*, LXXIII (1927), 112, et par K. KRETSCHMER, dans *O.L.Z.*, XXX (1927), col. 170–1. A. KÖSTER, *Schiffahrt und Handelsverkehr des östlichen Mittelmeeres im 3. und 2. Jahrtausend v. Chr.* (*Alten Orient*, Beiheft 1), est analysé par E. KORNEMANN, dans *Vergangenheit und Gegenwart*, XVII (1927), 168. Le livre de ROMOLA and R. C. ANDERSON, *The sailing-ship, six thousand years of history* (1926), est l'objet d'un compte-rendu de H. H. BRINDLEY, dans *The Antiquaries Journ.*, VII (1927), 88–91.

Les canots de papyrus de l'Égypte trouvent leur contre-partie moderne : G. REGELSPERGER, *Lac Tchad*, dans la *Géographie commerciale*, février 1927, 61–64.

*Vêtements*. E. DRIOTON, *L'évolution du costume dans l'Égypte antique*, dans *L'Ethnographie*, avril—décembre 1927, 19–23 ; W. SPIEGELBERG, *Altaegyptische gefaeltelte* (*plissierte*) *Leinwandstoffe*, dans les *A.S.A.*, XXVII (1927), 154–6 et 2 pl. ; ID., *Zu den altaegyptischen gefaltelten Leinenstoffen*, ibid., 241 ; R. VALLOIS, *Notes bibliographiques d'archéologie et d'histoire. L'industrie du vêtement en Égypte*, dans la *Rec. des Études anc.*, juillet—septembre 1927, 244–6.

*Divers*. K. GRÖBER, *Kinderspielzeug aus alter Zeit*. Berlin, 1927. Deux compte-rendus de H. GRESSMANN, *Altorientalische Bilder zum Alten Testament*, par O. EISSFELD, dans la *Zeitschr. für Missionskunde und Religionswiss.*, XLII (1927), 269, et J. HEMPEL, dans *D.L.Z.*, XLVIII (1927), col. 2089. E. A. W. BUDGE, *The mummy*. 2e édit. Cambridge, 1925, est critiqué par H. BONNET, dans *O.L.Z.*, XXX (1927), col. 351–2, et loué par S. A. B. MERCER, dans le *J.S.O.R.*, XI (1927), 78–9.

## DROIT.

J. ČERNÝ et T. E. PEET publient un contrat de mariage de la XXe dynastie : *A marriage settlement of the twentieth dynasty. An unpublished document from Turin*, dans le *Journal*, XIII, 30–9 et pl. XIII—XV. En appendice est publié un ostracon de la collection Gardiner.

E. BRECCIA étudie l'esclavage égyptien : *La schiavitù nell antico Egitto e i suoi rapporti con lo sviluppo della civiltà egiziana*, dans le *B.S.R.G.E.*, XV (1927), 71–5.

M. SAN NICOLO recherche l'influence du droit asiatique sur les contrats de mariage de l'époque perse : *Vorderasiatisches Rechtsgut in den aegyptischen Ehevertraegen der Perserzeit*, dans *O.L.Z.*, XXX (1927), col. 217–21. On trouvera dans le *Journ. Asiatique*, oct.—déc. 1927, 342, le compte-rendu d'une conférence de A. MORET sur les législations et les coutumes relatives au caractère de la propriété et à la dévolution des successions en Égypte. Voir aussi *Égypte ancienne et Bhoutan*, dans *L'Asie française*, mai 1927, 186 (dualisme administratif).

## BIOGRAPHIES.

*G. Bénédite*. CH. BOREUX, *Georges Bénédite* (1857–1926), dans la *R.É.A.*, I, 250–78 avec 1 portrait ; *A.J.A.*, 1927, 99 ; *La Géographie*, mars—avril 1927, 300 ; *Hommage à G. Bénédite*, dans *La Renaissance*, 19 mars 1927, 9 ; *Les obsèques d'un égyptologue*, dans le *Bulletin de l'art ancien et moderne*, no. 738, mai 1927, 139 ; *Cérémonie à la mémoire de G. Bénédite au Musée du Louvre*, le 12 mars 1927, dans les *Beaux-Arts*, V, 15 avril 1927, 130.

*H. Brugsch*. G. STEINDORFF, *Zum 100. Geburtstag Heinrich Brugsch's*, dans *Forschungen und Fortschritte*, III (1927), 47–8.

*Champollion le Jeune.* G. GABRIELI, *Letters of Champollion le Jeune*, dans *A.J.A.*, XXXI (1927), 473. C. LAGIER, *Autour de la Pierre de Rosette*, Bruxelles, 1927, réunit une série d'études à propos du déchiffrement des hiéroglyphes par Champollion: compte-rendu par L. JALABERT, dans *Études*, Paris, 20 mars 1927, 757.

*Aaron Ember.* KURT SETHE, *Aaron Ember. Professor der Aegyptologie in Baltimore, 1878–1926*, dans la *Ä.Z.*, LXII (1927), 130–1.

*E. Naville.* A. M. BLACKMAN, dans le *J.R.A.S.*, avril 1927, 406–8; M. BOULE, dans *L'Anthropologie*, XXXVI (1927), 600; H. GAUTHIER, dans le *Bull. de l'Inst. d'Égypte*, IX (1927), 134–5; H. R. HALL, dans le *Journal*, XIII, 1–6 et 1 portrait; J. A. M(AYNARD), dans le *J.S.O.R.*, XI (1927), 167; S. REINACH, dans la *Rev. Arch.*, XXV (1927), 216, et dans la *Ä.Z.*, LXII (1927), 132; *A.J.A.*, XXXI (1927), 359; *Rev. des questions scientifiques*, janvier 1927, 177.

*E. Schiaparelli.* A. CALDERINI, dans *Aegyptus*, VIII (1927), 337–8.

*G. Schweinfurth.* L. KEIMER, *Georges Schweinfurth et ses recherches sur la flore pharaonique*, dans la *R.É.A.*, I (1927), 198–202.

*E. von Sieglin.* NOACK, dans l'*Archaeologischer Anzeiger*, 1927, col. 426.

*H. Sottas.* R. WEILL, dans l'*Annuaire de l'École pratique des hautes Études*, 1927–8, 15–23; *A.J.A.*, XXXI (1927), 359; A. MORET, dans la *Rev. arch.*, XXV (1927), 219–20, et dans le *Journ. des Débats*, 11 janvier 1927; P. JOUGUET, dans *Aegyptus*, VIII (1927), 112–13.

*A. Moret.* Biographie par CH. BOREUX, dans le *Larousse mensuel illustré*, VII (1927), 440–1.

*M. Baud.* Y. OSTROGA, *Une Égyptologue*, dans les *Annales politiques et litt.*, 20 mars 1927, 300.

*P. Jouguet.* Article dans la *Semaine égyptienne*, 4 novembre 1927.

VARIA.

Je ne pense pas nécessaire de détailler le contenu des nombreuses notes de la *Chron. Ég.*, ni les *Notes and News* de *A.E.*, 1927, 32, 64, 112, et du *Journal*, XIII, 79–83 et 261–7.

W. SPIEGELBERG annonce la fondation du Séminaire d'Égyptologie de l'Université de Munich: *Das Seminar für Aegyptologie*, dans *Jubiläums Festschrift der Universität München*, 1927, 183–4. F. W. VON BISSING, *Neue Aufgaben der Aegyptologie*, dans les *Süddeutsche Monatshefte*, XXXIII (1927), 426–9, trace un programme de recherches. Plusieurs auteurs soulignent l'œuvre de la Fondation Égyptologique Reine Élisabeth: G. GABRIELI, *La Fondazione egittologica belga "Regina Elisabetta" e le sue pubblicazioni*, dans *Aegyptus*, VIII (1927), 169–74; O. GILLAIN, dans la *Rev. franco-belge*, VII (1927), 292–8 et 4 fig., et dans "*Voir et Lire*" de Bruxelles, II (1927), 254–5 et ill.; M. STRACMANS, dans *Art et Tourisme*, IV (1927), 141–3 et fig. La *Chron. Ég.* est appréciée par S. REINACH, dans la *Rev. Arch.*, XXVI (1927), 303–4.

W. S. BLACKMAN nous a donné un premier livre, plein de choses curieuses et bien observées: *The Fellahin of Upper Egypt: their religious, social and industrial life to-day, with special reference to survivals from Ancient Times*, Londres, 1927; compte-rendu par W. R. DAWSON, dans *Asiatic Rev.*, XXIV (1927), 312–3.

On ne sait trop dans quelle catégorie classer le livre de TH. FEIGEL, *Aegypten und der moderne Mensch. Ein Beitrag zum Erleben der Seele in Landschaft und Kunst*, Berlin, 1927, auquel W. SCHUBART, dans *O.L.Z.*, XXX (1927), col. 566–7, a consacré un article écrasant.

Voici quelques romans ou écrits littéraires: CARL MARIA KAUFMANN, *Die Verlorene Stadt, Roman aus dem ägyptischen Ausgrabenleben*, Berlin, 1927; P. FÉVAL (fils) et H. ALLORGE, *Mirâkris*, Paris, 1927; ST. KOLACZKOWSKI, *Le Pharaon* (étude sur le roman de BILESLAS PRUS), dans *Le Flambeau*, X (1927), 77–81; D. MEREZHKOVSKY, *Akhnaton, King of Egypt*, Londres, 1927; M. CAVALIERI, *Sotto le ale d'oro (in Egitto 4000 anni fa)*, Florence, 1927 (compte-rendu élogieux par A. CALDERINI, dans *Aegyptus*, VIII (1927), 203–4); D. MEREJKOVSKY, *Les Mystères de l'Orient. Égypte, Babylone*, Paris, 1927; Z. U. ZANNE, *Occultisme occidental et ésotérisme oriental*, Lausanne, 1927; A. LEBEY, *Isis et Pallas. Dialogue d'Orient et d'Occident*, Paris, 1927; J. D'HENNEZEL, *Visions d'hypogées*, dans la *Chron. Ég.*, III, 36–44; A. WEIGALL, *Flights into Antiquity*, Londres, s.d. (1927!).

L. THOMAS, *Le centenaire du mormonisme*, dans l'*Illustration*, no. 4404, 30 juillet 1927, 110–11, rappelle que parmi les livres sacrés du mormonisme se trouvent des papyrus égyptiens.

Le Fantôme du British Museum est évoqué dans la note: *The "ghost" anyone may see at the British Museum*, dans *I.L.N.*, no. 4584, 26 fév. 1927, 342–3. Le même journal, no. 4619, 29 octobre 1927, 760, représente une peinture de Pompéi: *A caricature of five drunken Ethiopians, feasting in an exedra beside the Nile, and threatened by a crocodile: A wall-painting from the House of Tragus at Pompeii.*

JEAN CAPART.

# BIBLIOGRAPHY: GRAECO-ROMAN EGYPT
## A. PAPYRI (1928–1929)

The work is again divided as follows:

§ 1. Literary Texts. H. J. M. Milne, British Museum.
§ 2. Religion, Magic, Astrology (including texts). A. D. Nock, Clare College, Cambridge.
§ 3. Publications of non-literary texts. H. I. Bell, British Museum.
§ 4. Political History, Biography, Administration, Topography and Chronology. J. G. Milne, 20 Bardwell Road, Oxford (Ptolemaic and Graeco-Roman Periods), and N. H. Baynes, Fitzwalters, Northwood, Middlesex (Byzantine and Arab Periods).
§ 5. Social Life, Education, Art, Economic History, Numismatics and Metrology. J. G. Milne (Ptolemaic and Graeco-Roman), and N. H. Baynes (Byzantine and Arab).
§ 6. Law. F. de Zulueta, 37 Norham Road, Oxford.
§ 7. Palaeography and Diplomatic. Miss M. E. Dicker, 21 Elm Bank Mansions, London, S.W. 13.
§ 8. Lexicography and Grammar. R. McKenzie, St John's College, Oxford.
§ 9. General Works, Bibliography, General Notes on Papyrus Texts. H. I. Bell.
§ 10. Miscellaneous and Personal. H. I. Bell.

The following abbreviations have been used in quoting periodicals:

*A.Z.* = *Zeitschrift fur aegyptische Sprache und Altertumskunde.*
*Am. Hist. Rev.* = *American Historical Review.*
*A.J.A.* = *American Journal of Archaeology.*
*Am. Journ. Phil.* = *American Journal of Philology.*
*Anc. Egypt* = *Ancient Egypt.*
*Archiv* = *Archiv fur Papyrusforschung.*
*Arch. f. Rel.* = *Archiv fur Religionswissenschaft.*
*Boll. fil. class.* = *Bollettino di filologia classica.*
*Bull. bibl. et péd.* = *Bulletin bibliographique et pédagogique du Musée Belge.*
*Bull. Soc. Arch. d'Alex.* = *Bulletin de la Société Royale d'Archéologie d'Alexandrie.*
*B.Z.* = *Byzantinische Zeitschrift.*
*Chron. d'Ég.* = *Chronique d'Égypte.*
*Cl. Phil.* = *Classical Philology.*
*Cl. Quart.* = *Classical Quarterly.*
*Cl. Rev.* = *Classical Review.*
*Cl. Weekly* = *Classical Weekly.*
*C.-R. Ac. Inscr. et B.-L.* = *Comptes-Rendus de l'Académie des Inscriptions et Belles-Lettres.*
*D. Lit.-Z.* = *Deutsche Literaturzeitung.*
*G.G.A.* = *Gottingische Gelehrte Anzeigen.*
*Hist. Z.* = *Historische Zeitschrift.*
*J.H.S.* = *Journal of Hellenic Studies.*
*J.R.S.* = *Journal of Roman Studies.*
*Jahrb. f. Lit.* = *Jahrbuch fur Liturgiewissenschaft.*
*Journal* = *Journal of Egyptian Archaeology.*
*Journ. Sav.* = *Journal des Savants.*
*N.G.G.* = *Nachrichten der Gesellschaft der Wissenschaften zu Gottingen.*
*O.L.Z.* = *Orientalistische Litteratur-Zeitung.*
*Phil. Woch.* = *Philologische Wochenschrift.*
*Rech. sc. relig.* = *Recherches de science religieuse.*
*Rev. arch.* = *Revue archéologique.*
*Rev. belge* = *Revue belge de philologie et d'histoire.*
*Rev. de phil.* = *Revue de philologie.*
*Rev. d'hist. eccl.* = *Revue d'histoire ecclésiastique.*
*Rev. ét. anc.* = *Revue des études anciennes.*
*Rev. ét. gr.* = *Revue des études grecques.*
*Rev. hist. dr. fr. et étr.* = *Revue de l'histoire du droit français et étranger.*
*Rev. hist. rel.* = *Revue de l'histoire des religions.*
*Rhein. Mus.* = *Rheinisches Museum fur Philologie.*
*Ric. di fil.* = *Rivista di filologia classica.*
*Sitzungsb.* = *Sitzungsberichte.*
*Symb. Oslo.* = *Symbolae Osloenses.*
*Theol. Lit.-Z.* = *Theologische Literaturzeitung.*
*Z. f. Kirchengesch.* = *Zeitschrift fur Kirchengeschichte.*
*Z. f. Numism.* = *Zeitschrift fur Numismatik.*
*Z. neut. Wiss.* = *Zeitschrift fur neutestamentliche Wissenschaft.*
*Z. Sav.-Stift.* = *Zeitschrift der Savigny-Stiftung.*

### 1. Literary Texts.

*General.* A survey of the new textual evidence provided by papyri is made by Dr. B. A. van Groningen in his inaugural lecture as Hoogleeraar of Greek Language and Literature at Leiden, 23 Jan. 1929, based largely on Oldfather. Similarly, in *Rev. ét. gr.*, xlii, 255–87, P. Collomp discusses the effect on theories of transmission caused by the "eclecticism" of the papyri.

POWELL and BARBER's second series of *New Chapters in Greek Literature*, briefly mentioned last year, includes essays on the new Callimachus, Menander, Later Epic Poetry, Later Lyric and Moralist, New historical fragments, Diatribe, Music, Medicine, with appendix on new Hesiodea. Review by C. M. BOWRA in *Cl. Rev.*, XLIII, 181–3, and by H. J. R[OSE?] in *J.H.S.*, XLIX, 300–1.

The British Museum *Catalogue of Literary Papyri* is reviewed by KNOX in *Journal*, XV, 139–41, with important metrical observations, restorations, and interpretations, particularly in Semonides, the Dramatic Lyrics, Posedippus and Parthenius. Reviewed also by F. WIEGAND in *Litteris*, 1929, 31–2. Noticed by W. BAUER in *Theol. Lit.-Z.*, LIV, 4.

The new P.S.I., vol. IX, contains: Homer, Hesiod: *Theogony* and *Scutum*, Isocrates: *Panegyricus*, [Hipponax, Erinna], Doric mythological fragment, [*Coma Berenices*, Gnomological, *Iambi* scholia], Logic fragment, Christian Liturgical fragment. For the first editions of the items bracketed see last year's bibliography.

In *Am. Journ. Phil.*, L, 255–65, 386–9, C. W. KEYES publishes papyri of extant authors in Columbia University—*Iliad*, the *Phaedrus*, Isocrates: κατὰ τῶν σοφιστῶν, Apollonius: *Argonautica*, iv, 675–96, 724–44; two further fragments of Homer from *Il.* v and *Od.* xvii. In l. 354 of the latter is a new reading δός.

We may here mention an interesting article in *Rhein. Mus.*, LXXVIII, 221–3, by E. PETERSEN, *Die Bedeutung der ὠκεανέ-Akklamation*, illustrating the meaning in the papyri from Chrysostom περὶ κενοδοξίας. P. finds no evidence for the identification of Νεῖλος and ὠκεανός, but he omits to mention the crucial instance in Brit. Mus. Lit. Pap. 239, ll. 8, 9.

*Epic.* A late poet of the Nonnus school is edited, from a papyrus binio (Pap. Gr. Vindob. 29788 A—C), by H. GERSTINGER as *Pamprepios von Panopolis, Eidyllien etc. und zwei Briefe des Gregorios von Nazianz*, in *Sitzungsb. Wien. Ak.* 208: 3, 1928. Pamprepios died in 488, and the present book cannot be much later. Reviewed by E. A. BARBER in *Cl. Rec.*, XLIII, 237–8, by P. MAAS in *Gnomon*, V, 259–2, with many suggestions, and by O. SCHISSEL in *Phil. Woch.*, 1929, 1073–80. See also K. HORNA in *D. Lit.-Z.*, 1929, 2349–51.

In *Papiri Milanesi* ("Aegyptus," S. Scientifica), vol. I, 1–3, are published fragments of *Aeneid* i, 638–40, 649–51, with word for word Greek version from a 4/5 cent. papyrus.

The identity of the British Museum *Dionysiaca* is settled once for all by R. KEYDELL in *Phil. Woch.*, 1929, 1101, who equates B.M. frag. 1, recto, l. 4 with frag. 26 of the *Bassarica* of Dionysius in MULLER, *Geogr. Gr. Min.*, II, xxviii, thus confirming an early surmise of Kenyon's.

The *Certamen* forms the subject of an article by C. GALLAVOTTI, *Genesi e tradizione letteraria dell' agone tra Homero ed Esiodo*, in *Ric. di fil.*, N.S. VII, 31–59, and also inspires a note in *Cl. Quart.*, XXIV, 40, by T. W. ALLEN, who regards its purpose as concealed literary criticism.

WILAMOWITZ restores, in *Hermes*, LXIII, 376, a line of *Euphorion* (*Berliner Klassiker Texte*, V, 57, l. 7), ἠστράπτετο [πέμφιξ.

*Lyric.* VITELLI's edition of the new *Erinna* fragments (now P.S.I. 1090) is reviewed by P. MAAS in *D. Lit.-Z.*, 1929, 116–17, and by VOGLIANO in *Gnomon*, V, 171, 288. Their suggestions, and those of other scholars, are incorporated in the *Addenda* to P.S.I., IX.

*Elegiac.* From the new *Coma Berenices* (now P.S.I. 1092) HOUSMAN emends *Catullus* 66. 54 in *Cl. Rev.*, XLIII, 168. In *Cl. Phil.*, XXIV, 290–2, H. W. PRESCOTT suggests for l. 2 ὅρ[υξ' ὀ,βελό]ς. See also E. FRAENKEL in *Gnomon*, V, 265–8, L. CASTIGLIONI in *Boll. fil. class.*, XXXV, 268–9, and MAAS in *D. Lit.-Z.*, 1929, 612–14.

Scholars disagree about the interpretation of ἃ πάντως—δρόσον in P. Oxy. 2079, 33. WILAMOWITZ in *Hermes*, LXIV (*Lesefrüchte*, CCLXV) puts a stop at δρόσον, and thinks ἵνα means "where." P. FRIEDLANDER in *Hermes*, LXIV, 383–4, makes ἵνα final, depending on εἴην, and regards ἃ πάντως as a parenthesis. This seems the most natural way. He reads ἐλ[αύνω in l. 5. IDA KAPP in *Philologus*, LXXXIV, 173–8, would read ἄδροσον! She makes suggestions also for frs. 9. 39 and 6. 8 (Pfeiffer). M. POHLENZ in *N.G.G.*, 1929, 150–5, disregards questions of space in his suggestions for P. Oxy. 2079.

The scholiast of B.M. Lit. Pap. 181 is himself puzzled, if A. WIFSTRAND's restorations in *Eranos*, XXVII, 116–18 from Homeric scholia are sound. From lemmata in the same Pap. 181, MILNE restores P. Oxy. 2079, 11–12, in *Cl. Rev.*, XLIII, 214, α[ἰ κατὰ λεπτά | ὧδε μέν]. It looks as if the shorter poems of Mimnermus had also female titles.

In P. Oxy. 2080 (*Aitia*, ii, 68), POWELL reads μερμνοῦ μοι πτερύγεσσιν ἔπου, in *Cl. Quart.*, XXII, 113.

A new theory about the Hamburg elegiacs in *Collectanea Alexandrina*, pp. 131–2, is developed by A. MOMIGLIANO in *Boll. fil. class.*, 1929, 151–5: *Un' ignota irruzione dei Galati in Siria al tempo di Antioco III?*

PREISENDANZ reviews F. WIFSTRAND, *Studien zur griech. Anthologie*, in *D. Lit.-Z.*, 1928, 2449–50. W. uses papyrus evidence.

*Drama.* An event of the first importance is JENSEN's long awaited *Menandri reliquiae in papyris et membranis servatae* now at last published by Weidmann. Commended by WILAMOWITZ in *Gnomon*, v, 465–9, who, however, regrets the lack of translation.

*Epitrepontes* 359 is emended by K. F. W. SCHMIDT in *Phil. Woch.*, 1929, 861–4. Reads *ἐμαυτόν τοι θέλοντα.*

In *Hermes*, LXIV, 267–70, KORTE shows why he would keep *ὑπόχρυσος* in *Epitrepontes* 117. The same play, l. 416, is restored by W. E. J. KUIPER from a scholium to *Wasps* 1258. Reads *ἀρ[ὰξ ἐπάταξ', ὁ δ' ἠρκὼς] τὰς ὀφρῦς*, in *Mnemosyne*, LVII, 163–5. KUIPER also makes important suggestions, *ib.*, 235–44, on the role of Simmias.

E. SCHWARTZ in *Hermes*, LXIV, 1–15, proposes interpretations of the *Perikeiromene*. F. MILTNER does the same for the *Samia* in *Mitth. d. Vereins klass. Philolog. zu Wien*, 1927, 60–7. L. A. POST publishes *Menandrea* in *Cl. Quart.*, XXIII, 209–12.

Parts of three columns of a new comedy (with characters Laches and Moschion) are published by VITELLI in *Stud. ital. di fil. class.*, N.S. VII, 235–42. The MS. can be dated 59—60 A.D.

Another important event is the Loeb *Herodas* (disguised as *Herodes*) by KNOX. It includes also Hipponax, Cercidas, and the Choliambic Poets, and is crammed with riches, including one ineditum, p. 256. Commended, with many suggestions and some annoyance, by MAAS in *D. Lit.-Z.*, 1929, 1864–8.

In *Mnemosyne*, LVII, 191–2, W. A. L. VREEKEN points out the correct translation of *Herodas* iv, 69–71. *ἀνηλάλαξ' ἄν* etc. = I would have exclaimed (in admiration) "I'm frightened the ox will hurt me."

HELGE LYNGBY writes in *Eranos*, XXVI, 52–8, on the *Μοιχεύτρια* Mime (P. Oxy. 413). For the alleged Kanarese in this Mime, see now Appendix III of *New Chapters* by Rev. E. P. RICE.

*Ichneutae* 302 (Pearson) is restored by F. MARX in *Rhein. Mus.*, LXXVIII, 224 as *φωνεῖ μὲν αἰό]λο[ν φ]ορείνη. φορείνη* = callum aprunum.

An important article on the new *Hipponax* (now P.S.I. 1089) is published by K. LATTE, with unflinching restorations, in *Hermes*, LXIV, 385–8. He thinks Petronius used it, but doubts if the author is not later than Hipponax. See too the Loeb *Herodas*, p. 62, and G. COPPOLA in *Studi ital. di fil. class.*, N.S. VII, 85–8.

*History.* An article on Lachares and Demetrius Poliorcetes by W. S. FERGUSON in *Cl. Phil.*, XXIV, 1–31, uses P. Oxy. 2082.

C[ASTIGLIONI] in *Boll. fil. class.*, XXXV, 212–13, makes suggestions relative to Levi's article on P. Oxy. 2088 and Servius Tullius.

In *Symb. Oslo.*, VII, 92, S. P. THOMAS writes on the Thucydides text (P. Oxy. 1376).

WILAMOWITZ reviews JACOBY's *Fragmente der griech. Historiker* in *D. Lit.-Z.*, 1928, 2449–50.

New fragments of historical works are discussed by E. M. WALKER in *New Chapters*, 66–75.

*Music.* The important article on "Greek Music in the Papyri and Inscriptions" by J. F. MOUNTFORD in *New Chapters*, 2nd ser., 146–83, should be consulted.

*Mathematics.* In *Cl. Phil.*, XXIV, 321–9, F. E. ROBBINS publishes from the 2nd cent. P. Mich. 620 a series of mathematical problems. Probably a schoolbook.

*Medicine.* The *Anonymi Londinensis Iatrica* is treated by E. T. WITHINGTON in *New Chapters*, 183–8.

A 3rd—4th cent. recipe for restoring the hair is published by S. MÖLLER in *Griech. Papyri aus dem Berliner Museum*, 1929, 81–2, from Pap. Berl. 11317 recto.

*Oratory.* POHLE'S *Sprache des Hypereides* is reviewed by D. C. HESSELING in *Museum*, XXXVI, 174, and by J. SYKUTRIS in *D. Lit.-Z.*, 1929, 702–5.

An Encomium on Demosthenes is published from the 2nd cent. P. Mich. 10 in *Trans. Am. Philol. Ass.*, LVII, 275–95, by W. EVERETT BLAKE.

In *Hermes*, LXIV, 491–7, LURIA returns to the subject of the connexion between Antiphon Sophistes and the *Alexander* of Euripides.

See too the important article by W. M. EDWARDS in *New Chapters*, 88–124, entitled "Dialogos, Diatribe, Melete."

*Philosophy.* An extremely important volume has been published by VOGLIANO, *Epicuri et Epicureorum Scripta in Herculan. Papyris servata* (Weidmann, 1928). Reviewed, with many suggestions, by R. PHILIPPSON in *N.G.G.*, 1929, 127–49, and also in *Ric. di fil.*, N.S. VII, 101–9. See also note *ib.*, 290.

P. SHOREY in *Cl. Phil.*, XXIV, 409–10, writes on *Plato and the Stoic οἰκείωσις in the Berlin Theaetetus Commentary.*

*Philodemus* is the subject of notes in *Ric. di fil.*, VII, 244–6, with references to Gregory Nazianzen and Quintilian; and E. ORTH in *Phil. Woch.*, 1929, 125–7, also gives restorations.

A papyrus of Plato's *Politicus* 308 E is published by G. RUDBERG in *Symb. Oslo.*, VIII, 92–4. No important readings.

*Romance.* A belated review of F. ZIMMERMANN's thesis, *De Charitonis codice Thebano*, which appeared in 1922 in *Philologus*, LXXVIII, 330–81, is published by L. CASTIGLIONI in *Gnomon*, V, 127–9, and a further note in *Boll. fil. class.*, XXXVI, 158–9.

## 2. RELIGION, MAGIC, ASTROLOGY.

### (*Including Texts.*)

*General.* A. WIEDEMANN's bibliography, *Ägyptische Religion* (*Arch. f. Rel.*, XXVI, 331–61) contains much that bears on this period.

F. BILABEL, *Die graeco-aegyptischen Feste* (*Neue Heidelberger Jahrbücher*, 1929, 1–51: dedicated to G. Vitelli on his 80th birthday) is of quite exceptional interest and value. After some general remarks on nomenclature etc., B. publishes a new Heidelberg papyrus (Inv. Nr. 1818) giving a list of feasts with *ἀργυρικαὶ ἡμέραι*; they include *Τυφώνια*, and he ascribes it with reason to the neighbourhood of Dendera. He then gives the data available from other calendars, Greek and hieroglyphic, and adds a most valuable list of festivals with *testimonia* (rebutting incidentally BRAUNINGER's suggestion, ΧΑΡΜΟΣΥΝΑ (*Hermes*, LXIII, 484–5)). It brings out the very great strength of the native religious element. [I can add only a reference for *Pelusia* to Tertullian, *De baptismo*, 5, discussed by me in *Journ. Theol. Stud.*, XXVIII, 289–90, and by DÖLGER, *Antike und Christentum*, I, and the puzzling *ξυσταρχία*...'Αλεξανδρείας Σελευκείου in KEIL-VON PREMERSTEIN, *Erster Reisebericht*, 20, no. 27 B, l. 20, which postulates an *ἀγὼν Σελευκεῖος*, on which cf. *J.H.S.*, XLVIII, 42, note 114. It should further be remarked that the ordinary Osiris festival, 17–20 Athyr, does not appear in the calendars of Soknopaiu Nesos or Edfu or Esnah: this may be due to omission or there may have been local variations.]

J. B. HURRY, *Imhotep*, is reviewed by CH. BOREUX, *Rev. hist. rel.*, XCVII, 282–8 (instructive and laudatory).

O. WEINREICH, *Gebet und Wunder, Zwei Abhandlungen zur Religions- und Literaturgeschichte*, offprinted from *Genethliakon Wilhelm Schmid zum siebzigsten Geburtstag am 24 Februar 1929 dargebracht* (*Tübinger Beiträge zur Altertumswissenschaft*, V, Stuttgart, Kohlhammer, 1929), pp. 167–464, handles with great learning and penetration *Gebetsegoismus* (prayers for evil to be averted and turned elsewhere) and the miraculous opening of doors. In this connexion he discusses various passages from magic papyri (pp. 343 ff.), also the *θυρίδες* of the Serapeum (369, 464). [Compare a queer type of altars with windows in them known in Cyprus and in a Mithraeum discovered by FR. DREXEL, *Das Kastell Stockstadt* (*Obergermanisch-rätische Limes*, 33, 1910), 80.]

ΠΑΝΘΕΙΟΝ. *Religiose Texte des Griechentums* in Verbindung mit GERHARD KITTEL und OTTO WEINREICH herausgegeben von HERMANN KLEINKNECHT (Stuttgart, Kohlhammer, 1929, pp. xvi + 115) is a very serviceable anthology.

*Ptolemaic.* H. VOLKMANN, *Studien zum Nemesiskult* (*Arch. f. Rel.*, XXVI, 296–321, with 2 plates), presents an excellent conspectus of new material mainly from Egypt, discusses the two Nemeseia at Alexandria, points to an Egyptian equivalent of Nemesis as a cause for her popularity in Egypt, and treats her rôle as a goddess of victory worshipped by the army and in the theatre. V. is a welcome addition to the ranks of students in this field.

P. ROUSSEL, *Un nouvel hymne à Isis* (*Rev. ét. gr.*, 1929, 137–68), gives a penetrating commentary on the hymn found by Salač at Cyme and its analogues, e.g. the hymn at Cyrene (for which the analogy of Euripidean and New Comedy prologues is to be noted. *Cf.* WEINREICH, *Arch. f. Rel.*, XVIII, 38 ff. The prologues profess also to be revelations). His discussion, pp. 164 ff., of the obscure process by which the Graeco-Roman mysteries of Isis took shape is also valuable.

To the question of the Ptolemaic *φωσφόρος* W. W. TARN returns in a postcript to L. R. FARNELL, *Hellenistic Ruler-Cult: Interpretation of two texts* (*J.H.S.*, XLIX, 78–80).

R. REITZENSTEIN, *Die Hellenistischen Mysterienreligionen*, is reviewed by E. BICKEL, *Phil. Woch.*, XLIX, 196–207; S. R[EINACH], *Rev. arch.*, XXX, 176; E. BRIEM, *Zur Frage nach dem Ursprung der hellenistischen Mysterien*, by K. H. E. DE JONG *Museum*, XXXVI, 100–1; K. KERÉNYI, *Die griechisch-orientalische Roman-*

*literatur in religionsgeschichtlicher Beleuchtung*, by A. BOULANGER, *Rev. ét. anc.*, XXXI (1929), 64–5, and L. SCALI, *Boll. fil. class.*, XXXVI, 36–41; E. WILLIGER, *Hagios*, by P. I. MPRATSIOTES, *Byz.-neugr. Jahrb.*, VI, 543–4.

W. DEONNA, *Terres cuites gréco-égyptiennes*, *Rev. arch.*, XXIV (1929), 281–90 (with one plate), publishes an Athene type and two interesting altar-bearing figures (one the head of a Silenus, the other the head of a woman) which he connects with processional usages.

*Roman.* A very welcome event is the publication of FRANZ CUMONT, *Les religions orientales dans le paganisme romain* (quatrième édition publiée sous les auspices du Musée Guimet. Paris, Geuthner, 1929, pp. xvi + 339, with 16 plates and 13 figures). This famous book re-appears with a new chapter, on the mysteries of Bacchus at Rome, with a complete revision of the very full notes at the end, and with an admirable selection of illustrations. It is of the greatest use to the specialist and, at the same time, an ideal introduction to the subject. CUMONT has also in his paper *Une représentation du dieu Alexandrin du temps* (*C.-R. Ac. Inscr.*, 1928, 274–82) published a bas-relief of Aion and Kore, and discussed the fusion at Alexandria of the local god Aion with the Persian Zervan.

F. WORMALD, *A Fragment of Accounts dealing with Religious Festivals* (*Journal*, XV, 239–42), publishes an interesting and puzzling text relating to festivals at Oxyrhynchus.

H. B. W[ALTERS], *A relief of Sarapis* (*British Museum Quarterly*, IV, 4–5, pl. vi), publishes a curious basalt disk, of the latter half of the 1st century A.D., dedicated to Sarapis, with a strange inscription ending ΤΟ ΒΑCΙΛΑΙΝ ΑΝΕΘΗΚΕΝ, and on its other side a bust of the radiate deity wearing the calathos.

I learn from *Phil. Woch.*, XLIX, 857, that A. SALAČ, *Listy filologické*, LIV, *Hlídka archaeologiká*, 289–301, publishes a glass bottle with a panorama of Puteoli, apparently showing the Serapeum, and suggests that the bottle was used to bring Nile water for religious purposes and that the inscription FELIX PIE ZESAIS CVM TVIS has magical significance.

K. SCOTT, *Octavian's propaganda and Antony's DE SVA EBRIETATE* (*Class. Phil.*, XXIV, 133–41), is a valuable contribution to the religious politics preceding Actium.

*Magic.* A. S. HUNT, *A Greek Cryptogram* (offprinted from *Proc. Brit. Acad.*, XV, 1929, pp. 10 and plate, 2 f.n.), publishes a small Michigan magical papyrus written in disguised Greek letters and brilliantly deciphered by him. It gives directions for making oneself beautiful. K. PREISENDANZ briefly announced the discovery in *Gnomon*, V, 457–8, and has since dealt with it in an important review, *Phil. Woch.*, XLIX, 1544–9. [His suggestion that, l. 4, Τυφῶνος is a slip for Ὀσίρεως and, l. 5, Ὄσιριν a slip for Τυφῶνα is very reasonable: the error may of course have taken place in the writer's mind.] The work has also been reviewed by A. D. NOCK, *Class. Rev.*, XLIII, 238. [I would add a remark on l. 13 [*ἀπά*]*γγελε τὰ κρυπτὰ τῆς μυριωνύμου θεᾶς* Ἴσιδος. If, as Preisendanz urges, the first few lines are addressed to Isis, this is not, as Hunt makes it, part of the prayer: it is an injunction directed to the man using the charm, and bidding him recite or threaten to recite the secrets of the goddess. A parallel for this sort of shorthand is the common use of *λόγος* (*e.g.* l. 2203 of the great Paris papyrus). I withdraw my suggestions on 4 and 8 f. Is Ιακω in 21 for Ιακωβ, and not as Pr. suggests for Ιαω? 'God of Abraham, Isaac and Jacob' would be liable to a misunderstanding like that which has made the proper name Σαβαωθ out of 'Lord of hosts.']

A. S. HUNT, *An Incantation in the Ashmolean Museum* (*Journal*, XV, 155–7), publishes an interesting love-charm attached to a clay figure: it is notable for its homosexual intent (hence the sentimentalism (l. 14), *συνκατάμειξον τὰς ψυχὰς ἀμφοτέρων*, absent from ordinary erotic magic) and for these invocations, (l. 5) *ἄδωνα ἀβρασαξ παν[ο]υτι καὶ σαβαως* and (l. 22) *διω αδωναι, οἴψειστε θεον, οὗ ἐτιν τῶνομαι τὸ ἀλειθινὸν διωω καὶ ἀδωναι.* H. reprints a Hawara charm published by J. G. MILNE, *Archiv*, V, 393, which he interprets as a love-charm and not a *defixio*, perhaps rightly. here two women are concerned.

A. D. NOCK, *Greek Magical Papyri* (*Journal*, XV, 219–35), gives, *à propos* of the new edition by PREISENDANZ, an account of the genesis of this literature, urging that its substratum had taken shape by the first century of our era, bringing it into connexion with the Pythagorean revival, and discussing a mystic strain sometimes apparent in it and its relation to *Pistis Sophia*. He shows also that a comparison of *P.* IV, 335 ff. with a Cairo lead tablet points to an original earlier than either. [F. C. BURKITT draws my attention *à propos* of p. 225, to the fact that in the Monastery of Epiphanius there are ostraca giving the heathen (planetary) days of the week: *i.e.* they had to be *taught* to monks about A.D. 600.]

S. EITREM, *Zu Philostrats Heroikos* (*Symb. Oslo.*, VIII, 1–51), is a very valuable study of the picture Philostratus gives of heroic cultus and of the continual revelations received by the *ἀμπελουργός* from Protesilaus. E. deals with the parallel thus afforded to magic papyri, e.g. *σύστασις*, and stresses Neo-pythagorean influence on the Philostratean ideal.

K. PREISENDANZ, *Papyri graecae magicae*, I, has been reviewed by TH. HOPFNER, *Gnomon*, V, 575–7; P. COLLART, *Rev. de phil.*, Sér. 3, III, 313–14; H. J. ROSE, *Cl. Rev.*, XLIII, 74–5; A. D. NOCK, *J.H.S.*, XLIX, 124; W. BAUER, *Theol. Lit.-Z.*, LIV, 102–4; an anonymous writer, *Journal of Religion*, IX, 153–4.

LEXA, *La magie dans l'Égypte ancienne*, has been reviewed by J. TOUTAIN, *Journ. des Sav.*, 1929, 126–34; P. MONTET, *Rev. ét. anc.*, 31, 68–9; A. W. SHORTER, *Journal*, XV, 137–8; CH. BOREUX, *Rev. hist. rel.*, XCVII, 120–31 (very high praise).

LYNN THORNDIKE, *History of magic*, has been reviewed by P. A[LPHANDÉRY], *Rev. hist. rel.*, XCVII, 147; O. BAUERNFEIND, *Die Worte der Dämonen im Markusevangelium*, by E. FASCHER, *Theol. Lit.-Z.*, LIV, 482–3; *Symb. Oslo.*, III–V by J. BEHM, *ib.* 586–7.

*Astrology. Catalogus codicum astrologorum graecorum: codicum Parisinorum partem primam descripsit* FR. CUMONT. Tomi VIII, Pars I. (Bruxelles, M. Lamertin, 1929. Pp. vi+292, 1 plate.) This admirable volume completes the record of the Paris MSS. and gives new fragments of Vettius Valens and Rhetorius, the *Methodus* of Hermes and other valuable material.

BOLL-BEZOLD-GUNDEL, *Sternglaube und Sterndeutung*, is reviewed by O. CASEL, *Jahrb. f. Liturg.*, VIII, 309; K. CH. SCHMIEDER, *Geschichte der Alchemie*, and FR. STRUNZ, *Astrologie Alchemie Mystik*, by R. VÖLKER, *Theol. Lit.-Z.*, LIV, 111. We may note in passing J. VON NEGELEIN, *Die Wahrzeichen des Himmels in der indischen Mantik* (*Arch. f. Rel.*, XXVI, 241–95: *e.g.* 249 on colours of heavenly bodies).

*Hermetica.* F. BRAUNINGER, *Untersuchungen*, is favourably reviewed by M. DIBELIUS, *Gnomon*, V, 161–5.

*Christianity.* C. SCHMIDT, *Neue Funde zu den alten* ΠΡΑΞΕΙΣ ΠΑΥΛΟΥ (*Sitzungsb. Preuss. Akad.*, 1929, VII, 176–83), gives a first account with extracts of a papyrus now at Hamburg, containing parts of the *Acts of Paul*, which are apart from one exception not preserved in the Coptic fragments at Heidelberg, include the episode quoted by Nicephorus and a saying quoted by Origen, and according to S. show that these Acts were not heretical. The full publication will be eagerly awaited.

H. A. SANDERS, *A newly discovered leaf of the Freer Psalter* (*Harv. Theol. Rev.*, XXII, 391–3), publishes one of the missing leaves, found in Kelsey's 1927 purchase: it covers Ps 146. 9—148. 1.

H. A. SANDERS-C. SCHMIDT, *Minor Prophets*, has been reviewed by F. G. KENYON, *Journal*, XIV, 329–30, H. I. BELL, *Cl. Rev.*, XLIII, 89–90, H. ST. JOHN THACKERAY, *Journ. Theol. Stud.*, XXX, 218–9. THACKERAY also in *A papyrus scrap of patristic writing* (*ib.*, 179–91, with plate), discusses a fragment in the MS., emends it brilliantly and, on linguistic grounds, makes the most attractive suggestion that it is a fragment of a lost Προφητικὴ κηρυκεία by Clement of Alexandria.

H. GERSTINGER, *Pamprepios von Panopolis, Eidyllion...und zwei Briefe des Gregorios von Nazianz im Pap. Gr. Vindob. 29788 A–C* (*Sitzungsb. Ak. Wiss. Wien*, 208, 3 Abt., 1928), publishes two poems of the Nonnian school which he ascribes to one Pamprepios (interesting as specimens of the survival of classical tradition and mythology) and Greg. Naz., *Epp.* 89 (86) and 90 (41).

E. DE FAYE, whose death is a serious blow, finished before it his large work on Origen (*Origène, sa vie, son œuvre, sa pensée*, II, III, Paris, Leroux, 1927, 1928. Pp. iii+248 and 307).

C. DEL GRANDE, *Liturgiae preces hymni Christianorum e papyris collecti*, is reviewed by S. LEIPOLDT, *O.L.Z.*, 1929, 366.

W. FOERSTER, *Von Valentin zu Herakleon*, is reviewed by W. VOLKER, *Theol. Lit.-Z.*, LIV, 487–90 (serious criticisms), J. M. CREED, *Journ. Theol. Stud.*, XXXI, 106–7, and anonymously in *Journal of Religion*, IX, 158; R. LORENTZ, *De Egyptische Kerkordening en Hippolytus van Rom*, by J. A. ROBINSON, *Journ. Theol. Stud.*, XXXI, 93–6.

C. MICHELS, *Die Akklamationen in der Taufliturgie* (*Jahrb. f. Lit.*, VIII, 76–85), incidentally shows the close resemblance between the vesting of the neophyte in white and his acclamation by the people in the Coptic-Ethiopic *Ordo confirmationis* of Alexandria and the conclusion of the initiation of Lucius in Apul., *Met.* XI.

H. LINSSEN in the course of his article ΘΕΟΣ ΣΩΤΗΡ (*Jahrb. f. Lit.*, VIII, 1–75: important for the classification of the liturgical material), suggests (p. 16) that P. Oxy. 405 is liturgical and remarks (p. 40) on the particular value of material from Egypt for the study of the development of Christian worship, and (p. 44) on the possibility that the Ethiopic rite preserves an early type of Alexandrian practice. He concludes that the liturgical use of σωτήρ and its correlatives is to be explained from the Hellenistic background and not from Biblical usage, and supports this view with a wealth of learning and of acute observation. [Some reference should be added to Philonic usage: *cf.* my *Early Gentile Christianity*, 91 f.] We must certainly allow that Hellenistic use has counted for a good deal. At the same time two points

may be observed. (1) We do not apparently find Ἰησοῦς σωτήρ with σωτήρ as a pure cult epithet (like Ζεὺς σωτήρ, etc.): σωτήρ retains much of its sense as a *nomen agentis*, as for instance in κύριος καὶ σωτὴρ ἡμῶν Ἰησοῦς Χριστός and in many phrases with an article, Ἰησοῦς ὁ σωτήρ. This use with the article has of course itself abundant Hellenistic analogy: it is normal for rulers. [A plain σωτήρ occurs in *Phil.* 2. 11 as quoted in Clement, *Excerpta ex Theodoto*, 42 from a Valentinian source κύριος τῆς δόξης Ἰησοῦς Χριστὸς σωτήρ, where σ. is an addition. But here we have to remember that ὁ σωτήρ is *the* Valentinian title for Christ, possibly because to them the soteriological work, rather than the historical personality, was everything. For σ. as a proper name, *cf.* P. Oxy. 1566, χαῖρε σωτήρ.] (2) The actual popularity of σωτήρ must have been in some measure connected with the idea that it was a synonym for Jesus (Luke 2. 11: Linssen 64; *cf.* Matth. 1. 21. καλέσεις τὸ ὄνομα αὐτοῦ Ἰησοῦν, αὐτὸς γὰρ σώσει τὸν λαὸν αὐτοῦ ἀπὸ τῶν ἁμαρτιῶν αὐτῶν).

A. D. Nock, *Liturgical Notes* (*Journ. Theol. Stud.*, xxx, 381–95), discusses the *Anaphora* of Serapion in its relation to Egyptian liturgical tradition and in particular the way in which the Institution narrative is attached to what comes before; also the origin of intercessions introduced by μνήσθητι.

We may in conclusion mention a work which will be of very great service to students in this and other fields. *Patrologiae cursus completus accurante I.-P. Migne series graeca.* Theodorvs Hopfner *Index locupletissimus tam in opera omnia omnium auctorum veterum quam in adiectas praefationes dissertationes commentationes omnes omnium virorum doctorum recentium per capitula operum omnia argumenta complectens. Accedit indiculus auctorum ex ordine tomorum indiculus auctorum ex ordine alphabetico quorum operum titulis editionum recentiorum conspectus adnectitur indiculus methodicus.* Tomus I, fasciculus I: Tom 1–17. (Pseudo-Clemens—Origenes.) [Paris: Geuthner: 1928, pp. 1–96.] This is a really full analysis of the contents of the *Patrologia*, not merely of the ancient texts but of the modern discussions therein reprinted. Its convenience and usefulness are obvious, and Professor Hopfner is to be congratulated on another admirable work of self-sacrifice in the cause of scholarship.

### 3. Publications of Non-Literary Texts.

(N.B. *Miscellaneous notes on and corrections of documents previously published are referred to in* § 9. *Reviews, when sufficiently important for mention, are noticed here.*)

*General.* J. Wolff reviews vol. III, part 2 of the *Sammelbuch* (*O.L.Z.*, xxxii, 345–6). P.S.I., ix, part 1 has been reviewed by P. Jouguet in *Rev. de phil.*, 3rd ser., III, 77–9, and by F. Zucker in *B.Z.*, xxix, 94–5. For part 2 see below, *Roman-Byzantine*. P. Cornell I has been reviewed by A. v. Premerstein (*Klio*, xxii, 164–5), F. Zucker (*O.L.Z.*, xxxii, 842–5), A. E. R. Boak (*Class. Phil.*, xxiv, 421–2), and M. Rostovtseff (*Cl. Weekly*, xxii, 92 f.; known to me only from *Phil. Woch.*, xlix, 1198); P. Bouriant by F. Zucker (*D. Lit.-Z.*, 1929, 799–805), A. E. R. Boak (*Class. Phil.*, xxiv, 420–1), and A. Helmlinger (*Rev. ét. anc.*, xxxi, 184–5); and B.G.U. vii by M. Rostovtseff (*Gnomon*, v, 435–40).

Claire Préaux has published an interesting and readable article on the evidence contained in private letters as to education in Egypt, translating many of the letters referred to. Of course, for a systematic study of the subject, this evidence must be supplemented by that of other documents, but the article is an excellent piece of *vulgarisation*, to use a handy French term, and furnishes even to the scientific worker a useful conspectus of the material. *Lettres privées grecques d'Égypte relatives à l'éducation*, in *Rev. belge*, viii, 757–800. For papyrus letters see also chapter III, "Letter Writing," by C. C. Edgar ("The Zenon Papyri"), and C. J. Ellingham ("Letters of Private Persons") in Powell and Barber's *New Chapters in the History of Greek Literature*, 2nd Series, 1929.

*Ptolemaic.* C. Préaux reviews P. Cairo Zenon, III, in *Chronique d'Égypte*, iv, 299–303. The Demotic documents of the Zenon archive have been edited with his usual mastery by W. Spiegelberg in a volume which is numbered Heft 8 of his *Demotische Studien*, though in a larger format than its predecessors. *Die demotischen Urkunden des Zenon-Archivs*, Leipzig, Hinrichs, 1929. Pp. viii + 37, 10 plates.

An edition by W. L. Westermann of an important and interesting διάγραμμα on slaves, the date of which appears to be the beginning of the 2nd century B.C., reaches me as this goes to press. Westermann discusses in detail the various problems raised or suggested by the διάγραμμα. *Upon Slavery in Ptolemaic Egypt*, New York, 1929, Columbia University Press. Pp. iii + 69, 1 plate.

Spiegelberg, besides the Zenon papyri referred to, has also published an important Demotic papyrus at Berlin which contains on the recto a fragment of regulations for civil actions, probably, in Spiegelberg's view, belonging to the ἐγχώριος νόμος, and on the verso a list of Egyptian priests, indicating the amount of their τελεστικόν. *Aus einer ägyptischen Zivilprozessordnung der Ptolemaerzeit (3–2 vorchristl. Jahrh.)* (*Abh. Bay. Ak.*, Neue Folge, 1, 1929), München. Pp. 22, 4 plates.

W. KUNKEL in an article on the alienation of catoecic land publishes three of the papyri (all of the late Ptolemaic age, 1st cent. B.C.) the evidence of which he uses. *Über die Veräusserung von Katoekenland*, in *Z. Sav.-Stift.*, XLVIII, 285–313.

*Ptolemaic-Roman.* The long-expected fasc. 1 of the Milanese Papyri, edited by A. CALDERINI, has now appeared. Apart from one literary text it consists entirely of documents, of which no. 2 is the Ptolemaic sale of a palm-grove already published by CALDERINI in the *Recueil Champollion*, and the others are of the early Roman period and form a single group, being the family papers of a certain Harthotes of Theadelphia. None of these papyri is of outstanding importance, but they form a useful addition to our material, and are edited with translations and a great wealth of commentary. *Papiri Milanesi* (Pubbl. di "Aegyptus," S. Scient., vol. I), Parte I, Collezione Jacovelli-Vita, Milano, Università Cattolica del Sacro Cuore, 1928. Pp. i–viii, 1–63, nos. 1–12.

*Roman.* H. SANDERS has published an important and interesting Latin birth certificate found at Karanis, in which the birth of illegitimate twin children "ex incerto patre" is recorded, and which refers to the leges Aelia Sentia and Papia Poppaea. *A Birth Certificate of the year 145 A.D.*, in *A.J.A.*, XXXII, 309–29, 4 plates. This and one of the certificates published by GUÉRAUD (see *Journal*, XV, 120) are the subject of a communication by R. CAGNAT, who reproduces the texts with brief notes. *Deux nouveaux certificats de naissance égyptiens*, in *Journ. Sav.*, 1929, 74–7. Sanders' text is also discussed in valuable articles by É. CUQ (*Les lois d'Auguste sur les déclarations de naissance*, in *Mélanges Paul Fournier*, 1929, 119–33) and EGON WEISS (*Zur Rechtsstellung der unehelichen Kinder in der Kaiserzeit*, in *Z. Sav.-Stift.*, XLIX, 260–73). See also § 6, B. iv.

N. Y. CLAUSON publishes with a detailed and valuable commentary a most interesting register in five columns dating from A.D. 104. It is the register of a customs house and is of special note because of its comparative fullness of detail, its good preservation, and the unusually large number of commodities mentioned. *A Customs House Registry from Roman Egypt* (*P. Wisconsin 16*), in *Aegyptus*, IX, 240–80.

A letter of the 2nd century from a certain Claudius Agathos Daimon to a friend named Sarapion is a useful addition to our material for tracing the development of the Chancery hand. Though strictly private in character, it was clearly written by a clerk trained in or strongly influenced by the official style; and the sender, who was probably a high official, merely subscribes in an informal hand at the end. It is edited by H. GERSTINGER, *Ein neuer Beitrag zur Geschichte der griechischen amtlichen Kanzleischrift* (*Pap. Gr. Vindob. 22473*), in *Wiener Studien*, XLVII, 168–72.

F. BILABEL has published a small but very interesting fragment of a document dating from the end of the 2nd century, on the verso of which is a list of festivals. It furnishes the starting-point for a most valuable article on Graeco-Egyptian festivals, for which see § 2 above. *Die graeko-aegyptischen Feste*, in *Neue Heidelberger Jahrbücher*, 1929, 1–51 (text on pp. 4–6). In connexion with this may be mentioned the rather later but hardly less interesting account of a festival or festivals published by F. WORMALD: *A Fragment of Accounts dealing with Religious Festivals*, in *Journal*, XV, 239–42.

In an appendix to their *Municipal Administration in the Roman Empire* (Princeton, 1926), F. F. ABBOTT and A. C. JOHNSON republish a large number of documents illustrating the subject. These include 45 from Egypt (pp. 507–71), consisting of both inscriptions and papyri.

Reference may here be made in passing to the cryptographic papyrus published by HUNT (see § 2 above) and the arithmetical problems published by ROBBINS (§ 1).

*Roman-Byzantine.* The second fasciculus of P.S.I., IX contains only one papyrus (no. 1079, a fragment of a letter) dating from before the Christian era; the remainder are of the Roman and Byzantine periods, and there are also some important literary papyri, for which see § 1 above. The most noteworthy of the documents are: 1063, receipts for the deposits of recruits in the *Cohors I. Augusta Praetoria Lusitanorum equitata*; 1066, an undertaking by a γεωμέτρης to present himself for the service of the ἐπισκέψεις; 1067, a request for an ἀπαρχή (Antinoopolis); 1072, a lease from Oxyrhynchus with interesting provisions; 1075, a petition which is of interest for the domestic relations of the petitioner; 1077, which mentions a detachment of the sixth legion posted at Lycopolis; 1078, which provides what is apparently the earliest mention of the eras of Oxyrhynchus; and 1080, a letter, the writer of which announces the sending of toys for "little Theon." *Papiri greci e latini*, IX, 2, pp. 97–214, nos. 1062–96 and indices. (*Pubbl. della Soc. Italiana.*) One papyrus in this volume (no. 1075) had previously been the subject of an article by G. SCHERILLO in *Rend. Ist. Lombardo*, LXII, which is however inaccessible to me.

The papyri in the municipal library of Gothenburg have been very well edited by H. FRISK. Twenty-one are published in full with commentary, the others described, sometimes however with the complete

text. Most of the documents are not of great importance, but several offer points of note, and nos. 3, 7 and 13 are of rather exceptional interest, the first concerning Caracalla's visit to Alexandria, the second being a document relating to the supply of glass windows in the baths, etc., and the last a letter concerning disturbances at Lycopolis. *Papyrus grecs de la Bibliothèque Municipale de Gothembourg*, Göteborg, Wettergren & Kerbers Förlag, 1929. (Goteborgs Högskolas Årsskrift, XXXV, 1929, 1.) Pp. 59, 2 facsimiles. 3 kr. Reviewed by F. ZUCKER (*B.Z.*, XXIX, 95–7) and H. I. BELL (*Cl. Rev.*, XLIII, 237).

Another meritorious Swedish publication is that by S. MOLLER of thirteen Berlin papyri of the Roman and early Byzantine periods. They are excellently edited, with an elaborate and indeed superfluously lengthy commentary, and with translations, and all offer some point of interest. No. 1 is perhaps the most noteworthy: it is a *διάλυσις*, remarkable in coming from Euergetis near Lycopolis (*Εὐεργέτις ἡ κατὰ Λύκων τὴν λαμπρὰν πόλιν*), in mentioning eponymous priests (in A.D. 300!), and in containing an occurrence of the word *ἀναγνώστης* in a sense new to papyri, *i.e.* a person who reads over a contract to an illiterate contractor. No. 2 is the beginning and end of P. Oxy. 1203, and contains the expression *ἐπ' ἐκστροφῇ*, for which see *Studi Bonfante*, III, 65. No. 4, besides several other interesting features, is dated by the *Καίσαρος κράτησις*. No. 5 mentions *ἐπιτηρηταὶ ἐξωπύλης καὶ ἐχανοδέσμου* (*sic*; or *λεχ-*, *i.e.* *λαχανοδέσμου*? Schubart) *Ψεῖ*. No. 9 is an interesting letter about the delivery of official documents to the *λογιστήριον*. No. 10 is an equally interesting letter relating to viticulture, in which there is a very noticeable effort after stylistic elegance. No. 11 is another letter which, despite its imperfection, is of considerable interest, and No. 13 contains a recipe for a hair restorer. It may be remarked in passing—and the remark would be appropriate to some other editions also—that the volume would be much more convenient to use if (1) the date of each document were clearly noted at the beginning, (2) the serial number of each were inserted at the top of every page after the first, (3) a table of papyri indicating the nature of each were given at the beginning or the end of the volume. *Griechische Papyri aus dem Berliner Museum*. Inaug.-Diss., Goteborg, 1929, Elanders Boktryckeri. Pp. viii+95, 2 plates. FRISK has published an article on this publication with new readings and useful notes, and a revised text of the first document. *Zu einigen neuedierten Berliner Papyri*, in *Aegyptus*, X, 87–95.

FRISK has himself published four Berlin papyri. They are: 1. Three fragments of an *ἀπόφασις* of A.D. 200, too imperfect for its exact subject to be discovered. 2. A petition to the *δικαιοδότης* in the well-known case Drusilla v. C. Julius Agrippianus. 3. Fragment (cols. 19 and 20) of a process against a *κωμογραμματεύς* before the strategus, early 3rd century. 4. An agreement for a lease of a vineyard in the Hermopolite nome, A.D. 512. *Vier Papyri aus der Berliner-Sammlung*, in *Aegyptus*, IX, 281–95.

*Byzantine and Arab.* V. MARTIN has published an important and interesting letter from the archive of Dioscorus of Aphrodito, which has for many years been in the Geneva collection. Its special value lies in the fact that it was written at Constantinople, and furnishes a good example of the handwriting of the Imperial civil service. It is from a high official, very likely, as MARTIN suggests, the *praefectus praetorio Orientis*, and it was clearly addressed to the Duke of the Thebaid. Its subject is one of Dioscorus's numerous law-suits. A facsimile of this letter will appear in the next part of the New Palaeographical Society. *A Letter from Constantinople*, in *Journal*, XV, 96–102.

I refer here only for the sake of completeness to two publications of Coptic papyri, *viz.* P. JERNSTEDT, *Zwei neue Bruchstücke der koptischen* ΕΡΩΤΑΠΟΚΡΙΣΕΙΣ, in *Aegyptus*, X, 80–6, and A. MALLON, *Nouvelle Série d'ostraca* **ⲉⲧⲙⲟⲩⲛⲟⲩ**, in *Rev. de l'Ég. anc.*, II, 89–96 (a collection of ostraca from Karnak, containing receipts similar to those in *Wadi Sarga*, a publication which the editor seems not to know. For **ϥⲟⲣ** see *Wadi Sarga*, p. 25 f., for **ⲑⲁⲗ** *op. cit.*, p. 20 f.).

### 4. POLITICAL HISTORY, BIOGRAPHY, ADMINISTRATION, TOPOGRAPHY AND CHRONOLOGY.

*General.* W. L. WESTERMANN's article on *New Historical Documents in Greek and Roman History*, published in *Am. Hist. Rec.*, XXXV, 14–32, is almost entirely concerned with Egypt and Cyrenaica, giving a fairly full summary of papers which have appeared recently.

Further reviews of works already noticed in the *Journal* are: of KAERST's *Geschichte des Hellenismus*, I (see XV, 122), by E. LOHMEYR in *Theol. Lit.-Z.*, LIV, 343–5; of JOUGUET's *L'impérialisme macédonien* (see XV, 122), by O. G. VON WESENDONK in *Klio*, XXII, 485–8, who scarcely touches on the Egyptian side of the book, by C. PRÉAUX in *Chron. d'Ég.*, IV, 292–7, and by W. W. TARN (on M. R. DOBIE's translation) in *Cl. Rev.*, XLIII, 27–8; of BEVAN's *History of Egypt* (see XV, 122), by C. PRÉAUX in *Chron. d'Ég.*, IV, 292–7, and CASPER J. KRAEMER in *Cl. Weekly*, Dec. 16, 1929. E. STEIN's *Geschichte des spätromischen*

*Reiches*, I, has been briefly noticed by E. HOHL in *Hist. Z.*, CXXXIX (1929), 580–2, and by M. BESNIER in *Journ. Sav.*, 1929, 79–80; it has been reviewed by N. H. BAYNES in *J.R.S.*, XVIII (1928), 217–28.

*Political History and position of nationalities.* An important paper by U. WILCKEN on *Alexanders Zug in die Oase Siwa* is printed in *Sitzungsber. Preuss. Akad. Wiss.*, XXX, 576–603. He holds that Alexander did not go to Sîwa to obtain recognition as the son of Ammon, but simply to consult the oracle. As King of Egypt, he was recognized as a god in Egypt, but this had no influence elsewhere: and it may have taken place before his visit to Sîwa, which was the result of a sudden idea conceived while he was founding Alexandria. At the temple he was greeted by the priests as the son of Zeus, but this was no part of the oracular utterance: the accounts of the proceedings clearly distinguish the two items, and the actual response was never known. The idea that the visit was designed to get a sanction for political enterprises is due to the embroidery of the Romance. Alexander never used for any practical purpose the sonship of Zeus which had been assigned to him: it was not till after his death that he became known as the son of Ammon. The article is reviewed by A. CALDERINI in *Aegyptus*, IX, 319.

WALTHER SCHWAHN's *Die Nachfolge Alexanders des Grossen*, I, in *Klio*, XXIII, 211–38, has not much about Egypt: he comments on the purely panegyristic nature of the accounts written in the interests of the Ptolemies (p. 221).

L. R. FARNELL's article on *Hellenistic Ruler-Cult*, with a note by W. W. TARN, in *J.H.S.*, XLIX, 79–81, though not primarily concerned with Egypt, should be noted.

*Ptolemy II and Arabia*, by W. W. TARN in *Journal*, XV, 9–25, reconstructs the story of the efforts of Philadelphus to get control of the incense-trade by holding N.W. Arabia.

E. CAHEN has written on *Les Juifs d'Égypte au temps de l'ère chrétienne* (Aix en Provence, 1927, 62 pp.), and A. ANDRÉADÈS on Οἱ Ἑβραῖοι ἐν τῷ Βυζαντινῷ Κράτει in Ἐπετηρὶς τῆς Ἑταιρείας Βυζαντινῶν Σπουδῶν (1929, 23 pp.; information supplied by H. I. BELL).

Further reviews of works already noticed in the *Journal* are: of SCHUBART's *Griechen in Aegypten* (see XV, 122) by S. DE RICCI in *Rec. ét. gr.*, XLII, 356; of BELL's *Juden und Griechen* (see XV, 123) by P. P[EETERS] in *Anal. Bolland.*, XLVII, 404–5, by A. D'ALÈS in *Rec. ét. gr.*, XLII, 117–19, and by H. S. J[ONES] in *J.R.S.*, XVIII, 127.

*Administration.* The discussion of the inscriptions recently found at Cyrene throws some side-lights on Egyptian history: articles to be noticed are by A. VON PREMERSTEIN, *Fünf Edikte des Augustus und Senatsbeschluss aus Kyrene*, in *Klio*, XXII, 162–4, by J. STROUX and L. WENGER, *Die Augustus-Inschrift auf dem Marktplatz von Kyrene*, in *Abh. Bay. Ak.*, XXXIV, 2, by F. TAEGER, *Zum Verfassungsdiagramm von Kyrene*, in *Hermes*, LXIV, 432–57, by A. SEGRÈ, *La costituzione di Cirene*, in *Bull. Ist. Dir. Rom.*, 1929, and by J. A. O. LARSEN, *Notes on the Constitutional Inscription from Cyrene*, in *Cl. Phil.*, XXIV, 351–68.

M. BESNIER discusses the title *corrector* in *L'usurpateur Achilleus et le titre de "corrector"*: he considers that if Achilleus was called "corrector," as suggested by WILCKEN, he took the title himself as a dignity almost imperial: *C.-R. Ac. Inscr.*, 1929, 216–21.

V. CHAPOT's *Astos* in *Rev. ét. anc.*, XXXI, 7–12, deals with the Greek use of the term, but may be consulted for references in papyri.

B. A. VAN GRONINGEN, writing *De tributo quod εἰσφορά dicitur* in *Mnemosyne*, LVI, 395–408, touches on the late use in Egypt.

A. SEGRÈ has an article *A proposito di peregrini che prestavano servizio nelle legioni romane* in *Aegyptus*, IX, 303–8.

Some information as to the organization of the Egyptian troops is obtained by F. SCHEHL from an inscription found at Termessos: *Ein ἀρχισατράτωρ des praefectus Aegypti Valerius Eudaemon* in *Jahresh. d. ost. arch. Inst.*, XXIV, 95–106.

In his book on *The Roman Legions*, Oxford, 1928, H. M. D PARKER argues that in Egypt the *praefectus castrorum* gradually advanced to the position of commander of the legion, and eventually bore the title *praefectus legionis*. This conclusion is contested by E. VON NISCHER in *Hist. Z.*, 140, 115.

P. COLLOMP's *Chancellerie et diplomatique* (see *Journal*, XV, 124) is reviewed by G. ROUILLARD in *Rev. de phil.*, 3, III, 221–2.

For the use of the terms στρατηγός and στρατηλάτης reference may be made to W. ENSSLIN's paper on *Dalmatius Censor, der Halbbruder Konstantins I*, *Rhein. Mus.*, N.F. LXXVIII (1929), 199–212.

H. I. BELL's valuable summary of the evidence of the papyri for *The administration of Egypt under the 'Umayyad Khalifs*—a paper read at the Congress of Orientalists at Oxford, Aug. 28, 1928—has been published in *B.Z.*, XXVIII (1928), 278–86. Though the work is not directly concerned with papyri,

reference may be made to WALTHER BJÖRKMANN, *Beitrage zur Geschichte der Staatskanzlei im islamischen Ägypten. Abhandlungen aus dem Gebiet der Auslandskunde.* Hamburgische Universität. Band 28; Reihe B. *Volkerkunde, Kulturgeschichte und Sprachen*, Band 16. Hamburg, Friedrichsen, De Gruyter, 1928. Reviewed by F. DÖLGER in *B.Z.*, XXVIII (1928), 431–2.

*Biography.* W. W. TARN, in an article *Queen Ptolemais and Apama* in *Cl. Quart.*, XXIII, 138–41, suggests that Ptolemy I married an Egyptian princess soon after his arrival in the country.

*Topography.* FR. ZUCKER contributes an essay *Zur Landeskunde Aegyptens aus griechischen und romischen Quellen* to the *Festschr. Walther Judeich* (pp. 131–41), dealing with the occurrence of the acacia in place-names and especially the Khargeh oasis.

F. W. VON BISSING has described *Tine, eine hellenistisch-romische Festung in Mittelaegypten* in *Sitzungsber. d. bayer. Akad. d. Wiss.*, 1928, Abh. 8.

*Chronology.* J. K. FOTHERINGHAM has a comprehensive article on *The Calendar* in *The Nautical Almanac for 1931* (publ. 1929), 734–47, which contains useful accounts and explanations of the Egyptian, Greek, and Roman calendars.

J. B. CHABOT reviews M. CHAISE, *La Chronologie des temps chrétiens de l'Égypte et de l'Éthiopie*, in *Journ. Sav.*, 1928, 373–4. Reviews of works previously noticed are: of E. MEYER's *Untersuchungen* (see XV, 125) by W. KUNKEL in *Gnomon*, V, 48–51, and of W. KUBITSCHEK's *Grundriss der antiken Zeitrechnung* (see XV, 125) by M. P. NILSSON in *G.G.A.*, 1929, 99–104.

5. SOCIAL LIFE, EDUCATION, ART, ECONOMIC HISTORY, NUMISMATICS, AND METROLOGY.

*General.* J. VOGT's *Herodot in Aegypten: Ein Kapitel zum griechischen Kulturbewusstsein* is included in *Genethliakon Wilhelm Schmid*, 97–137.

Reviews of works already noticed in the *Journal* are: of W. W. TARN's *Hellenistic Civilisation* (see XV, 125) by U. KAHRSTEDT in *G.G.A.*, 1928, 482–8; of P. VIERECK's *Philadelpheia* (see XV, 125) by O. LENZE in *O.L.Z.*, XXXII, 551–3, and by F. W. VON BISSING in *Phil. Woch.*, XLIX, 17–21; of M. ROSTOVTZEFF's *Social and Economic History* (see XV, 126) by D. ATKINSON in *Cl. Rev.*, XLIII, 35–6.

G. OSTROGORSKY in his *Antrittsvorlesung* (delivered in the University of Breslau on 3 November 1928) has discussed *Die wirtschaftlichen und sozialen Entwicklungsgrundlagen des byzantinischen Reiches*, *Vierteljahrschrift fur Sozial- und Wirtschaftsgeschichte*, XXII (1929), 129–43.

*Finance, Agriculture, Industry.* M. ROSTOVTZEFF has written on *The Roman Exploitation of Egypt in the First Century A.D.* in the *Journ. of Econ. and Business History*, I, 337–64, and on *The Origin of Serfdom in the Roman Empire* in the *Journ. of Land and Public Utility Economics*, 1926, 198–207.

The interest of ELIZABETH GRIER's *Lucius Julius Serenus, an Egyptian Landowner of the second century after Christ*, in *Cl. Phil.*, XXIV, 42–7, is chiefly economic.

N. J. CLAUSON publishes *A Customs House Registry from Roman Egypt* in *Aegyptus*, IX, 240–80 (see also § 3).

G. GLOTZ treats of *Le prix du papyrus dans l'antiquité grecque* in *Ann. d'hist. écon. et soc.*, I, 3–12.

WARMINGTON's *Commerce between the Roman Empire and India* (see XV, 126) is reviewed by M. BESNIER in *Rec. de phil.*, 3, III, 91–2.

Under this head a reference must be made to the important διάγραμμα on the sales of slaves published by WESTERMANN (see § 3 above, *Ptolemaic*).

In the field of Byzantine finance the most important study is that of A. ANDRÉADÈS, *Deux livres récents sur les finances byzantines*, *B.Z.*, XXVIII (1928), 287–323, a review of F. DOLGER's *Beitrage zur Geschichte der byzantinischen Finanzverwaltung des X und XI Jahrhunderts* (Teubner, 1927), and G. OSTROGORSKY's *Die landliche Steuergemeinde des byzantinischen Reiches im X Jahrhundert* (*Vierteljahrschrift fur Sozial- und Wirtschaftsgeschichte*, XX (1927)). This review is of real significance for the study of Byzantine technical terminology in general, not merely for the usage of the tenth and eleventh centuries. See too § 6, A. iii.

H. BOTT's dissertation on *Die Grundzuge der diokletianischen Steuerverfassung* has been favourably reviewed by F. HEICHELHEIM, *Hist. Z.*, CXL (1929), 658–9—"eine solide und fruchtbare Erstlingsarbeit." G. ROUILLARD's *L'administration civile de l'Égypte byzantine* has been reviewed by R. DRAGUET in *Rev. belge*, VIII (1929), 246–8, and by L. CANTARELLI in *Aegyptus*, IX (1928), 313.

*Education, Science, and Art.* CLAIRE PRÉAUX edits *Lettres privées grecques d'Égypte relatives à l'éducation* in *Rec. belge*, VIII, 757–800 (see also § 3).

G. BENDINELLI discusses *Influssi dell' Egitto ellenistico sull' arte romana* in *Bull. Soc. Roy. d'Arch. d'Alex.*, XXIV, 21–38.

MARIA KOBYLINA, in a paper *Zur Geschichte der Alexandrinischen Skulptur* in *Jahrb. D.A.I.*, XLIII, 69–77, publishes a boy's head at Moscow, with illustrations from the Moscow and Hermitage collections.

W. DEONNA describes a head of Athena crowned with an owl and heads crowned with altars in the Musée d'art et d'histoire at Geneva: *Terres cuites gréco-égyptiennes* in *Rec. arch.*, 5, XXIX, 281–90.

E. BRECCIA's *Monuments de l'Égypte gréco-romaine*, I, is noticed by S. R[EINACH] in *Rev. arch.*, 5, XXVIII, 343.

*Numismatics and Metrology.* PRINCE SOUTZO's *Complément à l'étude de la monnaie des premiers Lagides* appears in *C.-R. Ac. Inscr.*, 1928, 23–7.

J. G. MILNE discusses *Ptolemaic Coinage in Egypt* in *Journal*, XV, 150–3.

SEGRÈ's *Circolazione monetaria* (see *Journal*, XV, 126) is reviewed by A. NEPPI MODONA in *Historia*, VII, no. 2.

## 6. LAW.

A. *General.*

i. *Bibliographies.* We welcome the resumption of the comprehensive bibliographies of Roman law, understood widely, formerly compiled by BERTOLINI, *Bull. Ist. Dir. Rom.*, XXXVI, 159–314, especially 224–44. The present instalment, continuing from vol. XXIX, 185–216, covers from about 1915 to the end of 1923. E. PERROT's annual bibliography has not appeared in *Rev. hist. dr. fr. et étr.*, VIII. A valuable aid to study (wrongly criticized *Journal*, XV, 127) is continued in *Aegyptus*, IX, 309–10; X, 97–101: *Testi recentemente pubblicati*, but under *Bibliografia metodica*, IX, 320–3, we find only *Indice degli autori* for previous numbers. *B.Z.*, XXVIII, 230–2, 474–7, and XXIX, 153–6, gives bibliographical notes; also *Byz.-neugr. Jahrb.*, VI, 357–60 (Balkan tendency). There are bibliographies for 1925 and 1926 by M. HOMBERT in *Byzantion*, III, 520–46 (law 532–3, 543–4), and there is said to be another in *Chronique d'Égypte*, 1929, 286 ff. (not seen). A necrology of F. BRANDILEONE by P. B. in *Bull. Ist. Dir. Rom.*, XXXVII, 125–7, gives a list of the deceased's chief works.

ii. *Legal history of antiquity.* The thesis advanced by L. WENGER in works chronicled *Journal*, XV, 127–8, has given rise to considerable comment. First we must add a further statement by WENGER himself: *Wesen und Ziele der antiken Rechtsgeschichte*, an address to the Oslo Historical Congress, which WENGER has summarized in *Z. Sav.-Stift.*, XLIX, 688–91 (cp. 620), and published in *Studi Bonfante*, II, 693 (Pavia, 1929, not seen). A critical attitude towards the philological orientation of modern romanistic studies, which he admits to be correctly reported by WENGER and to be largely inevitable, is taken up by P. BONFANTE, *Il metodo filologico negli studi di diritto romano* (*Scritti della Facoltà giuridica di Roma in onore di Antonio Salandra*, Milan, 1928, 123–36), and there are reserves also in *L'histoire du droit de l'antiquité* (*Mélanges Paul Fournier*, Paris, 1929, 787–805) by F. DE ZULUETA.

The core of the problem is the extent to which Roman imperial law was influenced by Graeco-oriental law. Its Romanism is impressively defended by S. RICCOBONO, *Storia del diritto antico e studio del diritto romano* and *Summum ius summa iniuria*, being Italian translations with commentaries respectively of MITTEIS's lecture *Antike Rechtsgeschichte*, etc. (*Journal*, XV, 127) and of J. STROUX's monograph, *Summum ius summa iniuria* (offprint from *Festschrift Paul Speiser-Sarasin*, Teubner, 1926): *Annali del Seminario giuridico di Palermo*, XII, 478–637, 639–91. With these read RICCOBONO's review of STROUX's work in *Gnomon*, V, 65–87. On the other side we have P. COLLINET's very judicious articles: *Le rôle de la doctrine et de la pratique dans le développement du droit romain privé au bas-empire* (*Rec. hist. dr. fr. et étr.*, N.S. VII, 551–83, VIII, 5–35). See also the same author's Oslo address (*Bulletin of the Committee*, no. 5, 623–31, summary *Z. Sav.-Stift.*, XLIX, 691–2): *Les facteurs de développement*, etc. Relevant also are two articles noticed by F. MAROI, *Arch. Giurid.*, CII, 225–30, in a review of *Scritti Salandra*, mentioned above: P. DE FRANCISCI, *Osservazioni sulle condizioni della legislazione nei sec. ix. e x.* (137–53, not seen), and E. CARUSI, *Rapporti fra diritto romano e diritti greco-orientali* (155–87).

Two addresses by orientalists to the Oslo Congress are notable in this connexion. P. KOSCHAKER, *Forschungen und Ergebnisse in den keilschriftlichen Rechtsquellen*, *Z. Sav.-Stift.*, XLIX, 188–201, emphasizes the value of this branch of study for purposes of comparison, but rather with German and Greek laws than with Roman law, at least in its learned stage. But comparative law does not for Koschaker involve universal legal history, and as to causal connexions he holds that, while the fact of Hellenistic and therefore oriental influence on Roman law is not to be denied, the measure of that influence is difficult to take, and that the proved borrowings of Greek law from oriental come to very little. But, he concludes, Babylonian-Assyrian legal history, widened to include all cuneiform documents, is in itself a worthy

field of study. The other address, by M. San Nicolò, *Einiges aus den neubabylonischen Rechtsurkunden*, *Z. Sav.-Stift.*, xlix, 24–54, announces the publication by himself and A. Ungnad, in a form accessible to the profane, of the whole of the documents of the late Babylonian period (middle of cent. vii to latter half of cent. iv): *Neubabylonische Rechts- und Verwaltungsurkunden*, i, 1 (Leipzig, 1928), of which there is an appreciative review by P. Koschaker in *Z. Sav.-Stift*, xlix, 647–55. In his article San Nicolò seeks points of comparison rendered possible by these documents with contemporary Greek and Egyptian law (pp. 28–9, 36–7, 47 ff., 52–3). He concludes that they have a part to play in the analysis of the complex system known as Byzantine law.

The other side of the picture is unveiled in a remarkably original study (also an Oslo address) by E. Levy, *Westen und Osten in der nachklassischen Entwicklung des römischen Rechts*, *Z. Sav.-Stift.*, xlix, 230–59. There is a post-classical evolution in the West also, a preliminary exposition of which shows that while reception moved mostly from East to West, sometimes it moved the other way (Paul's Sentences, Western constitutions, papal letters). There is a valuable note on the written stipulation at p. 254.

The particular clause dealt with by M. San Nicolò in *La clausola di difetto o eccedenza di misura nella vendita immobiliare secondo il diritto babilonese* (*Studi Bonfante*, ii, 41–50, Pavia, 1929) is represented in the period of the Seleucidae and Arsacidae by a formula resembling that found in contemporary Egyptian documents (the author's *Schlussklauseln*, p. 209), and in Greek papyri till late in the Byzantine period by ἢ ὅσαι ἂν ὦσιν. Here San Nicolò sees only coincidence, though in other matters he believes in causal connexion (*Journal*, xv, 127 *i. f.*). We must chronicle also his appreciative and detailed review, in *Z. Sav.-Stift.*, xlix, 531–40, of P. Koschaker's *Neue keilschriftl. Rechtsurkunden*, etc. (*Journal*, xv, 128), and his *Miszelle*, *ibid.*, 461–2, drawing attention to a group of late Babylonian cuneiform tablets discovered in 1926 by the French Archaeol. Institute of Jerusalem in Syria, which he welcomes as evidence of a possible westward diffusion of Babylonian commercial law, extending perhaps to Egypt. A bare mention must suffice of J. Pirenne's *Essai sur l'évolution du droit de famille en Égypte sous l'ancien empire* (*Mél. Fournier*, 615–31) and his *Le lien vassalique à l'époque de la première féodalité dans l'ancienne Égypte* (*VI—XI^e Dyn.*) (an address summarized in *Rev. d'hist. dr. fr. et étr.*, N.S. viii, 647–9).

iii. *Miscellaneous reviews.* In *Z. Sav.-Stift.*, xlix, 495–502, K. Latte has a rather fault-finding review of G. M. Calhoun's *The growth of criminal law in ancient Greece* (*Journal*, xv, 128), whereas M. San Nicolò welcomes Calhoun and Delamere's *Working bibliography of Greek law* (*Z. f. vergleich. Rechtswiss.*, xliv, 432. Cp. *Journal*, xv, 127). San Nicolò, *ibid.*, 432–3, notices *Opere di Contardo Ferrini*, i, ii (iii also has appeared; Milan, 1929), as does C. G. Mor in *Riv. di Storia del Dir. Ital.*, ii, 183–6. The first volume on Romano-Byzantine law is relevant here. F. Stella Maranca, *Bull. Ist. Dir. Rom.*, xxxvi, 145–9, gives an analysis of A. Albertoni († 1929), *Per una esposizione del diritto bizantino con riguardo all' Italia*, a book of which there is a thoughtful notice by G. S. Maridakis in *Z. Sav.-Stift.*, xlix, 518–25, and to which N. B. adds a useful bibliography in *B.Z.*, xxviii, 475–6. M. San Nicolò, *Z. f. vergleich. Rechtswiss.*, xliv, 438–9, speaks well of F. Dölger, *Beiträge zur Geschichte der byzantinischen Finanzverwaltung* (*Byz. Archiv*, Heft 9), as does E. Stein, but with more reserve, in *Z. Sav.-Stift.*, xlix, 504–6. Stein draws attention to a Heidelberg dissertation by Ostrogorsky (cp. *Vierteljahrschrift f. Soz.- u. Wirtschaftsgesch.*, xx, 91–103) containing translation with commentary of the Byzantine tract published by W. Ashburner, *J.H.S.*, xxxv, 76–84, and re-edited by Dölger (see also § 5). In *D. Lit.-Z.*, 1929, 1259-61 and *O.L.Z.*, xxxii, 168–9 respectively M. San Nicolò also has short notices of L. Wenger's *Aus Novellenindex*, etc. (*Journal*, xv, 128, 132), and of É. Cuq's *La condition juridique de la Coelé-Syrie*, etc. (*Journal*, xiv, 155). He thinks better of Cuq's conclusions than of his argument. G. Beseler, *Byz.-neugr. Jahrb.*, vi, 547–55, deals in detail with Τὸ ἀστικὸν δίκαιον ἐν ταῖς νεαραῖς τῶν Βυζαντινῶν αὐτοκρατόρων (Athens, 1922) by G. S. Maridakis, agreeing in general with the author against a previous reviewer, F. Brandileone, *Ric. ital. per le scienze giurid.*, 1926, 389 ff. (not seen). The best account of the issues is Wenger's review of H. Monnier's *Les Novelles de Léon le Sage* (*Journal*, xv, 128).

iv. *New juristic texts.* In *Z. Sav.-Stift.*, xlix, 694, A. Segrè gives a summary of his communication to the Oslo Congress concerning three texts which will be published in *Studi Bonfante* (Pavia, 1929– ) and eventually edited in P.S.I. They are *scholia*, half Latin, half Greek, which he judges to belong to the period of the Law of Citations, and possibly to be a relic of the Alexandrian law-school.

v. *Documents and comments.* In *Aegyptus*, ix, 281–95, H. Frisk, *Vier Papyri aus der Berliner-Sammlung*, edits with commentary, amongst other documents, Inv. Nr. 7420+7424, *ca.* 139 A.D., relating to the case of Drusilla *v.* C. Iulius Agrippianus (Mitteis, *Chr.*, 87–8). Also, in *Aegyptus*, x, 87–95, *Zu einigen neuedierten Berliner-Papyri*, he reviews an edition of 13 documents contained in a dissertation by S. Möller,

*Griech. Pap. aus dem Berliner Museum* (Göteborg, 1929; not seen). FRISK re-edits the first document (Inv. Nr. 11707), a διάλυσις of 300 A.D., which he says is the most important. The second piece (Inv. Nr. 11808) is interesting as containing the beginning and end of P. Oxy. XII, 1203.

M. SAN NICOLÒ's review in *Z. f. vergleich. Rechtswiss.*, XLIV, 427–31, of the legal matter in P.S.I. VIII, especially 901–18, is important, but too compressed for summary. A good many of J. C. NABER's *Observatiunculae ad papyros iuridicae*, continued in *Mnemosyne*, N.S. LVI, 109–38; LVII, 73–101, 379–414, fall under the present heading. There come under review chiefly: P. Grenf. I, 11, P. Heid. 1280+Grenf. I, 17, P. Taur. VII, 3–13, P. Grenf. I, 13, 21, 33, 44, 60, 62, P. Grenf. II, 23, 67, 70, 76, P. Paris 5, 8, 15, 20, 32, 38, 62, 63, 65, and P. Aktenst. 1, 2, 3, 4, 11, 12.

vi. *Diplomatic.* Parts of NABER's last-mentioned articles might also be placed here.

H. STEINACKER's *Die antiken Grundlagen der frühmittelalterlichen Privaturkunde* (Berlin, 1927; *Journal*, XV, 129) has provoked important reviews from M. SAN NICOLÒ, *Z. f. vergleich. Rechtswiss.*, XLIV, 433–8, A. STEINWENTER, *Krit. Vierteljahresschrift f. Gesetzgebung u. Rechtswiss.*, N.F. 3, XXIII, 158–72, B. KÜBLER, *Phil. Woch.*, XLIX, 1254–60, and G. FERRARI, *Arch. storico ital.*, ser. 7, XII, 3–17. All seem agreed on the value of this excursion of a medievalist into antiquity. SAN NICOLÒ, while approving the author's method in carrying the development back to the ancient East, observes that the actual proof of the oriental derivation of the Greek document is small, and that the extent of Greek influence on Rome in this matter is controversial. He thinks the treatment of the oriental and pre-Greek Egyptian material the least successful. STEINWENTER shares these reserves: welcoming the application of the diplomatic method to the ancient material, he judges the author too optimistic (p. 45) as to possible results in papyrology. He notes the considerable treatment of ἀναγραφή and καταγραφή, but regards STEINACKER's section on the Roman document as more important. Here BRUNNER's derivation from Roman practice of the Germanistic *traditio chartae* is rejected: STEINACKER holds that by a misunderstanding of Nov. 44, 1 the Italian notaries treated *dimissio* or ἀπόλυσις as equivalent to *traditio*; he also argues that *insinuatio* in the *gesta municipalia* arose in the East, not in Italy. STEINWENTER doubts or dissents on both the last points. KÜBLER, however, agrees as to the Eastern origin of the *ius actorum*. He praises the author's mastery of the ancient material, giving a summary of his Egyptian results, but he considers that in its main point, the refutation of BRUNNER, the book does not fully succeed: because *insinuatio* was a necessary act (Nov. Val. 15, 3 of 444), it does not follow that *traditio per chartam* was erroneous. FERRARI (an article rather than a review) naturally concentrates on this main problem. After describing the Germanistic *traditio chartae* (pp. 9–11) and stating STEINACKER's position, *viz.* that the perfecting force of this act, though recognized in central and southern Italy after Justinian, was due to non-Roman influences, he gives his own opinion that, nevertheless, the medieval *tr. ch.* is an ulterior development of the *tr. ch.* found in the West during the later empire. Sixth cent. Ravenna documents no doubt lay a hitherto unknown stress on *tr. ch.*, but it is mentioned also, and earlier, in the East (P. Oxy. IX, 1200; XIV, 1627, 1643; XVI, 2003. FREUNDT, *Wertpap.*, I, 28, 1). Exchange of documents is after all a natural thing, and what requires examination is the late imperial forms of contract *inter absentes*. He then explains STEINACKER's hypothesis of an Italian confusion between ἀπόλυσις and *tr. ch.*, but shows that in the East πλήρωσις and ἀπόλυσις were kept distinct (citing Πεῖρα Eustathii Romani, XXXVIII, 8, ed. Zachariae, p. 167).

vii. *Reception of Roman Law.* A. J. BOYÉ, *Le droit romain et les papyrus d'Égypte*, in *L'Égypte contemporaine*, XX, 529–59 (Cairo, 1929), after a general discussion of the relation of papyrology to the study of Roman law, attacks the problem of reception by Egypt of foreign law in the Ptolemaic and early imperial (pp. 536–47) and Byzantine periods. The Ptolemaic tendency to fuse Greek and native law was somewhat checked by the advent of the Romans, but, as in language, so in law Greek influence proved stronger than Roman: in fact under Roman rule Hellenistic practice developed. Roman influence led to a consolidation of private property, but commercial law, a department in which Roman law itself was largely Hellenized, was mainly Hellenistic. The inclusion of Egypt in the Eastern Empire reinforced Hellenistic and oriental tendencies, which even penetrated into the official law. There is a good exposition of the influence of oriental practice (cp. *Const. Deo auctore*, § 10). But we must not overlook the West (E. LEVY, ii, above), nor the force of the Roman tradition, which was revived in the East by a scholastic reaction at Berytus. This school may have eclipsed the Alexandrian; at any rate the traces of Justinian's lawbooks in papyri are few, and there are not lacking signs of positive rejection in Egypt of his novelties. This resistance coincides with a national Egyptian reaction, beginning in the middle of the 5th cent., which brought native legal ideas once more to the front.

These general conclusions are borne out by R. TAUBENSCHLAG, *Geschichte der Rezeption des römischen Rechts in Aegypten*, *Studi Bonfante*, I, 369–440, in a systematic study, divided into six sections: (1) the Roman population in Egypt, and (2) the legal practice of the Romans, before the *Constitutio Antoniniana*, (3) influence of Roman on popular law in the same period, (4) Roman law after the *Const. Ant.*, (5) Justinian's legislation, (6) popular law after Justinian. In each of sections 2–5 the departments of private law are reviewed successively; the repetition is a little wearisome, but makes for chronological distinction and ease of reference. There are original contributions in plenty, but the main value of the work, which is great, is its rich documentation, which over the whole field of private law offers a ready answer to the question: what precisely is there in the papyri?

B. *Law of persons.*

i. *General.* Most of *Caput et Σῶμα* by M. RADIN in *Mél. Fournier*, 651–63, is irrelevant here, but we note the discussion of *σῶμα* as a technical term, with a reference to P. Jouguet 10 (p. 660, 20). P. BONFANTE, *Di un' influenza orientale nel diritto romano*, *Rend. Acc. Lincei*, ser. 6, IV, 273–86, has no difficulty in showing that national Roman law simply ignored *castrati*, and that the story of their civil disabilities belongs to the late empire. True the early classical law could no longer shut its eyes to this scourge, but the regulations took the form of criminal penalties. The *Gnomon* certainly shows that provincial law imposed restrictions on succession to *castrati*, but penetration into the official private law did not take place till Justinian. The views which make the civil disabilities of *castrati* classical are severely commented on.

ii. *Slavery.* G. GROSSO, *Sulla fiducia a scopo di "manumissio,"* *Riv. ital. per le scienze giurid.*, N.S. IV, fasc. iii, 1–88 (of offprint), makes use of P. Lips. 136 (pp. 7, 60 ff., 70 ff.). C. G. MOR, *La "manumissio in ecclesia,"* *Ric. di storia del dir. ital.*, I, 81–150, studies Greek precedents, using A. CALDERINI, *La manomissione e la condizione dei liberti in Grecia* (Milan, 1908), and P. DE FRANCISCI, *Intorno alle origini della Manumissio in ecclesiis*, *Rend. Ist. Lomb.*, XLIII, 619, concluding with the latter that the origin lies in consecration to and invocation of the gods, not in hierodulism or sale to the temple, as is often held. He then (p. 85) deals with the papyri (P. Oxy. IV, 722, 723. MITTEIS, *Grundz.* 271; *Chr.* 358–61).

iii. *Civitas.* In *Z. Sav.-Stift.*, XLIX, 129–54, *Das griechische Bundesburgerrecht der hellenistischen Zeit*, W. KOLBE argues in favour of the existence of legal communion between the component states of the Greek leagues of the Hellenistic period. The material is not papyrological, but the question is relevant. In *Aegyptus*, IX, 303–8, A. SEGRÈ, *A proposito di peregrini che prestarono servizio nelle legioni romane*, argues from the claim (V.P.B. 72) of the children of M. Valerius Valens, previously Psenemunis, to succeed their father, a legionary who seems to have died before *honesta missio*, that the father had not lost his Egyptian nationality; for, whether legitimate children born before, or illegitimate born during, service, they could have had no claim to succeed a citizen (*Gnomon*, §§ 34, 35, 52–4). The reference by SECKEL-MEYER, *Zum sogen. Gnomon*, etc., p. 24, 5, of V.P.B. 72 to *unde cognati* is wrong, and *B.G.U.* 140 (MITTEIS, *Chr.* 373) is not in point, Hadrian's epistle applying only to a soldier's or veteran's citizen, though illegitimate, offspring. The conclusion is that many Egyptians served in the legions, generally after service in the *auxilia* or fleet, but remained *peregrini* till *h. missio*. As such they could be succeeded *ab intestato* by their descendants, even illegitimate, *eiusdem nationis*.

The governing idea of E. SCHÖNBAUER's *Studien zur Personalitätsprinzip im antiken Recht*, *Z. Sav.-Stift.*, XLIX, 345–403, is that this principle in ancient law must not be confused with private international law. The latter, a modern idea, rests on a duty to apply to resident aliens, in certain cases, their native law. The former is simply exclusive: the law of a state applies only to its citizens, and if practical considerations require provision to be made for aliens, their special law will be a class-law, which *de facto* may consist in some adoption of their native law, but *de iure* is simply what the sovereign state chooses to ordain for resident aliens or classes of them. From this basis SCHÖNBAUER in his first two sections (345–59) energetically combats BICKERMANN's conclusions (*Journal*, XIV, 151; XV, 129–30, 130–1), that the racial styles of the Greeks in Ptolemaic Egypt were legally irrelevant, and that they did not live by their racial laws, but by royal law. SCHÖNBAUER agrees that all were subject to royal *διάγραμμα*, but holds that the Greeks outside the *πόλεις* were organized in racial *πολιτεύματα*, having, like the *πόλεις*, *νόμοι πολιτικοί*. The analogy drawn with the organization of the Macedonian army under Philip and Alexander, and the use made of the new Cyrenean constitution (*πολίτευμα, δυνάμεις*) deserve careful consideration. *Epigone* denotes membership by descent of one of the subdivisions of the military class. Persians of the *epigone* (359–67) were Egypt-born descendants of Persian soldiers. For them we expect a class-law, the *νόμος πολιτικός* of their *πολίτευμα*, and the special law of execution which we find

applied to them from the 2nd cent. was such a *νόμος*, and *de facto* not native Persian. This law cannot have been penal (VON WOESS), but was probably voluntarily adopted by the *πολίτευμα* as a means of improving credit. A. SEGRÈ (*Journal*, XV, 130) may be right in holding that Egyptians entering the army were elevated to this, the lowest of the "classes," which was the equivalent of the *μισθοφόροι ξένοι* of the Alexandrian army, instead of to a *πολίτευμα* of their own. Another section (373–8) combats BICKERMANN's rejection of the personality principle for Greece proper, and the remaining sections deal with the working of the principle by Rome. We have discussions of the *ius gentium* (387–96; the *de facto* influence of cosmopolitan commercial practice seems unduly depreciated), and of Augustus's class-policy (396–403), with special reference to the *Gnomon* and the Cyrenean edicts.

iv. *Family.* The Karanis diptych published by H. A. SANDERS, *Amer. Journ. Archaeol.*, XXXII (ser. 2), 309–29, is reproduced by R. CAGNAT, *Journ. Sav.*, 1929, 74–7, as a supplement to a previous article, *ibid.*, 1927, 193–202 (*Journal*, XIV, 143; XV, 131. In the last place 1926 is an error for 1927). He gives also a fresh birth-certificate from O. GUÉRAUD, *Bull. de l'Inst. fr. d'archéol. or.*, XXVII, 119, the chief interest of which is its early date, 62 A.D. The Karanis document reveals the hitherto unknown fact that the *l. Aelia et Papia Poppaea* forbade *spurii* to be entered on the *album professionum liberorum natorum* (BRUNS, *Fontes*⁷, p. 420, no. 193). For full discussion see E. WEISS, *Zur Rechtsstellung der unehelichen Kinder in der Kaiserzeit*, *Z. Sav.-Stift.*, XLIX, 260–73, and É. CUQ, *Les lois d'Auguste sur les déclarations de naissance*, *Mél. Fournier*, 119–33. The Latin document ends with *derecbtss*; cp. GRENFELL, *Bodleian Quart. Record*, II, 259–62, on which MITTEIS, *Z. Sav.-Stift.*, XL, 359, proposed *descriptum et recognitum ex exemplis binis* (CUQ *ex exemplo breui*) *tabulae supra scriptae*. WEISS prefers DITTMANN's proposal for the present document: *de ea re eodem exemplo binae tabulae scriptae sunt*, which is very plausible in view of BRUNS, *Fontes*⁷, p. 377, no. 171, and Apuleius, *Apol.*, 89.

In *Z. Sav.-Stift.*, XLIX, 115–28, *Die materna potestas im grako-ägyptischen Recht*, R. TAUBENSCHLAG shows that over the person of her child the mother possessed many of the powers attributed by Roman law to the father, though during the father's life her powers were in abeyance or reduced to mere concurrence. In regard to the child's property her position was not quite parallel, depending upon appointment as guardian by marriage contract or marital testament; or she may appear as *ἐπακολουθήτρια* by the side of an officially appointed guardian. As to the reaction of these popular ideas on Roman law, Justinian still kept in principle to the *potestas* of the father, though even before him the mother's guardianship of fatherless children was recognized. The *Ecloga* made the great advance of turning that guardianship into a veritable *potestas*, so that Leo the Wise (Nov. 27) could speak of *μητρικὴ ἐξουσία*, which is to go further, at least in the sphere of property, than Graeco-Egyptian law.

In *Riv. di storia del dir. ital.*, II, 352–3, V. CAPOCCI gives tidings of the publication by G. SCHERILLO of an Oxyrhynchus papyrus (P.S.I. 1075) of 458 A.D., relating to nuptial donation and suggesting *pretium pudicitiae*: *Un papiro del v secolo in materia di rapporti patrimoniali tra coniugi*, *Rend. Ist. Lomb.*, LXIII, vii–x (1929) (not seen). The papyrus is republished by SCHERILLO in *Riv. di storia del dir. ital.*, II, 457–506, at the beginning of *Studi sulla donazione nuziale* (fasc. arrived as we were going to press).

W. KUNKEL, art. *Matrimonium*, in PAULY-WISSOWA's *Realenzyklopädie*, should be noted.

C. *Law of property.*

E. H. SELIGSOHN's dissertation, *Iusta possessio* (Berlin, no date, 47 pp.), favourably reviewed by G. EISSER, *Z. Sav.-Stift.*, XLIX, 548–51, being a study of the history of the Roman idea of possession, hardly concerns us, save so far as in his preliminary survey of pre-classical sources the author is led by the inscriptions dealing with boundary disputes between Greek states to comment (10–12) on the absence of a technical term for ownership, and to enquire how far *κυριεύειν* conveys the notion.

The first part of L. WENGER's *Griechische Inschriften zum Kaiserkult und zum Grabrecht*, *Z. Sav.-Stift.*, XLIX, 308–44, belongs to other departments. The second (328–44) discusses a recently discovered Ephesian sepulchral inscription (text 329 and 344), which shows the possibility of disposing of a *sarcophagus*, and thus raises a question of the general theory of *res religiosae*. The text is also interesting diplomatically (338 ff.).

E. SCHÖNBAUER, *Beiträge zur Geschichte des Bergbaurechts*, *Munch. Beitr. z. Papyrusforschung u. antiken Rechtsgesch.*, 12 Heft (Munich, 1929, XV + 208 pp.), attacks his theme from the point of view of continuity. does a line run straight from Graeco-Hellenistic through provincial Roman to medieval mining law? After an introductory survey of literature, and discussion of basic concepts and Greek mining law (13–32), the Roman sources, principally the Vipasca inscriptions, are studied (32–158), and then the medieval (158–92). The conclusion (193–208) is for continuity in some cases, against it in others and on the whole, the fact

being that no general mining law existed which could have continued. The importance of the subject in economic and administrative history makes the book not negligible by papyrologists, the more so that in the elucidation of various points the author makes use of his papyrological knowledge. In a very judicious review by B. KÜBLER, *Z. Sav.-Stift.*, XLIX, 569–75, the basic classical law and the post-classical changes are clearly stated, and dissent from SCHÖNBAUER's opinion of the relation of the two Vipasca inscriptions is expressed. The *Quellenverzeichniss* enables the papyrologist to pick out his own points easily, *e.g.* the explanation (not accepted by KÜBLER) of *pittaciarium*, the parallel between *liberalitas* and *εὐεργεσία* or *φιλανθρωπία*, the comment on P. Hal. 1, 106–14.

D. *Law of obligations.*

i. *General.* In *Z. Sav.-Stift.*, XLIX, 409–10, G. BESELER discusses, with some reference to papyri, *συμβόλαιον*, *συναλλαγμα* and the like.

In *Aegyptus*, X, 3–24, A. SEGRÈ, *Note sulla ἐγγύη greco-egizia*, begins with a consideration of *ἐγγύη* in the light of recent Germanistic research. He then shows in Ptolemaic state contracts the appearance of the debtor first as correal with the *ἔγγυος*, and then as *αὐτέγγυος*, a parallel with the Roman *manceps idem praes* so striking as to suggest reception. He regards *ἀλληλεγγύη* as of native Egyptian origin, not Greek, being the nearest translation of indigenous solidary liability of members of family and other groups. Finally he reviews Partsch's distinction between *ἐγγύη* and *βεβαίωσις*, concluding that it was the native contract of sale, not the Greek, which produced the auto-*βεβαίωσις* of the seller. The last easily coalesced with the *stipulatio duplae*.

ii. *Stipulation.* F. BRANDILEONE, *La "stipulatio" nell' età imperiale romana e durante il medio evo*, *Riv. di storia del dir. ital.*, I, 7–73, 270–310, contends mainly that the classical oral stipulation persisted in the West till late in the middle ages. This hardly concerns us, but the argument is that it persisted likewise in the East till Leo's constitution of 472 (C. 8, 37, 10), which only reached the West through Justinian and to a limited extent.

G. SCHERILLO, *La trasmissibilità della "stipulatio in faciendo,"* *Bull. Ist. Dir. Rom.*, XXXVI, 29–97, makes a strong case for the necessity in classical law of mention of *heredes* in stipulations of certain kinds, if the obligation was to pass to or against heirs. The author does not raise the question whether the same rule is found elsewhere (see however pp. 43, 2 and 70, 1). H. KRELLER, *Erbrechtliche Untersuchungen*, 26 ff., inclines to regard *mentiones heredum* in the papyri as being *ex abundanti cautela*; but the point might be worth examining. Cp. V. KOROŠEC, *Die Erbenhaftung nach römischem Recht*, I, 115, 3 (Leipzig, 1927).

iii. *Sale.* H. R. HOETINK contributes a thoughtful article, *Quelques remarques sur la vente dans le droit grec*, *Tijdschrift voor Rechtsgeschiedenis* (=*Rev. d'hist. du droit*), IX, 253–70, the point of which is that the view held by many modern writers (literature, 263, 2), that the Greek contract of sale was a real contract, is extremely hypothetical. In this connexion he points to the relative infrequency of *arrha* in the papyri (list, 257, 3).

iv. *Lease.* G. SCHERILLO, *Rend. Ist. Lomb.*, LXII, 1–35 (in offprint), studies the relation of *Locazione e precario* in Roman law. *Locatio* may be derived from *precarium*, but in classical law they were distinct, though the decay of *precarium* is shown by the growing tendency to deny the possession of the precarist. In post-classical law they fuse, D. 43, 26, *de precario* being mere homage to tradition. *Precarium*, in fact, became *locatio* at the will of the locator, the *μίσθωσις ἐφ' ὅσον βούλει χρόνον* of the later papyri. Cp. *Journal*, XIV, 154.

F. KOBLER's *Der Teilbau im romischen und geltenden italienischen Recht, mit Berücksichtigung des franzosischen Rechts* (Marburg in Hessen, 1926, xiv+145 pp., not seen) is reviewed by B. KÜBLER, *Z. f. die Gesammte Staatswiss.*, LXXXVII, 166–8, and by G. EISSER, *Z. Sav.-Stift.*, XLIX, 552–5. KÜBLER is favourable, specially praising the author's papyrology. EISSER regrets the exclusion of public law and of the late imperial developments, and the lack of distinction between countries. He (EISSER) gives a list of the later papyri with *colonia partiaria* (553, 1). From P. Oxy. II, 277 and P. Lond. V, 1694, he argues that the fruits were owned in common till partition. He also draws attention to SCHÖNBAUER's comparison (*Bergbaurecht*, 54, 129) of the miner's share of the product, which is not approved by KÜBLER.

v. *Negotiability.* A. SEGRÈ, *A proposito della c. d. clausola al portatore nei documenti di credito Greco-egizi*, *Bull. Ist. Dir. Rom.*, XXXVII, 77–9, maintains against P. KOSCHAKER (*Neue Keilschr. Rechtsurk.*, etc., 42; *Journal*, XV, 128) his own previous view (*Bull.*, XXXIV, 138 ff.) that the clause *κυρία παντὶ τῷ ἐπιφέροντι* did not create assignability, which existed by general law, but justified the debtor in paying the holder without documentary proof of assignment. If KOSCHAKER were right, the disappearance of

the clause from the 4th cent. ought to mean that debts had ceased to be assignable, whereas what it shows is the influence of Roman formularies, though curiously enough the clause appears later in the West. In this connexion a short summary of how the Romans compensated for their lack of bills of exchange is welcome: H. LÉVY-BRUHL, *La lettre de change a Rome*, *Rev. hist. dr. fr. et étr.*, N.S. VIII, 638–9 (*résumé* of an address).

E. *Law of succession.*

J. C. NABER in the second of the articles mentioned above (A. v) has a note (§ 21, *Mnemosyne*, LVII, 79) on a difference between Egyptian and Greek law, under the former a claimant heir could simply ἐμβατεύειν, whereas the latter required ἐπίσταλμα first, *i.e.* claimant must be properly established as heir.

G. FERRARI, *Papiri Ravennati dell' epoca Giustinianea relativi all' apertura di testamenti*, *Studi Bonfante*, II, 633–44, contributes an important article, based on P. Marini LXXV and LXXIV, on the formalities of making and opening wills in the Byzantine period. P. LXXV is a normal will, though not secret, under the celebrated constitution of 439 (Nov. Th. 16, 1, 2–5). We see how exactly the formalities of opening described by PAUL, *Sent.* 4, 6, 1 were observed in this case. He then puts in their picturesque historical surroundings the *gesta* preserved by P. LXXIV, which he holds is a copy of the original kept at the public archive: see BRUNS, *Fontes*[7], 317–9; GIRARD, *Textes*[5], 815–7; SAVIGNY, *Verm. Schr.*, III, 122–54. For Egyptian wills of this period see TAUBENSCHLAG, *op. cit.*, *supra* A. VII, p. 425.

F. *Law of procedure.*

L. WENGER, *Z. Sav.-Stift.*, XLIX, 477–8, gives a short notice of the publication by W. SPIEGELBERG of a demotic procedural code (*Aus einer ägyptischen Zivilprozessordnung der Ptolemaerzeit*, *Abh. Bay. Ak.*, N.F. 1, 1929; cp. *ibid.*, 4, 1929). This new source is naturally one of the bases of E. SEIDL's dissertation, *Der Eid im ptolemaischen Recht* (Munich, 1929: viii + 116 pp.), a work which deserves a longer notice than can be given here. The most interesting part of the book to a lawyer is ch. 5, which ascribes to Bocchoris (Diodor. 1, 79, 1) a distinction in procedure for recovery of debt according as there was documentary evidence or not; in the latter event the defendant had the right to clear himself by oath, and this, one gathers, is where the author would find the origin of the oath-programmes (ὅρκος ὃν δεῖ ὀμόσαι, *e.g.* WILCKEN, *Chr.*, 110 *a*). The comparison with other systems, which *prima facie* suggests itself, is not drawn.

A. J. BOYÉ, P. Oxy. XVII, 2130, *L'editio opinionis et l'appel en matière de charges liturgiques*, *Studi Bonfante*, IV, 183–202, has the merit of being the first to confront ll. 24–7 of this papyrus (267 A.D.) with Macer 2, *de appellatt.*, D. 49, 5, 6. The confrontation is illuminating, and the rest is easy meat for an acknowledged master of post-classical procedure. For a short time *opinio* seems to have been technical for the statement of grounds of refusal of appeal which the judge had to give to the party on his demand, but soon it was swallowed up by the term *relatio*, which means the judge's report to his superior, copy of which was supplied to the party. The case here is one of imposition of liturgy, and BOYÉ asks, To whom did appeal lie? With WILCKEN he thinks in principle to the prefect, with possibility of delegation to the *epistrategus*. There are other interesting points for which we lack space.

G. *Public law.*

On the constitution of Cyrene we have to record: *La stele della costituzione*, *Riv. filol.*, N.S. VI, 183–220, by G. OLIVERIO, and *La costituzione di Cirene*, *Bull. Ist. Dir. Rom.*, XXXVI, 5–28, by A. SEGRÈ. The latter discusses first the date of the διάγραμμα, which he puts between 322 and 313, and then the various organs of the constitution. Some bibliography on this subject is given by P. CLOCHÉ, *Rev. historique*, CLX, 332–4.

Of the new Cyrenean edicts (*Journal*, XV, 133) there is an important study by J. STROUX and L. WENGER, *Die Augustus-Inschrift auf dem Marktplatz von Kyrene*, *Abh. Bay. Ak.*, XXXIV, 2 (1928, 145 pp. The contents are: general introduction with literature by WENGER; text, translation and philological notes by STROUX; WENGER on the senatorial province of Cyrenaica, with notes on the Senate's power to confer *civitas* and ἀνεισφορία (pp. 55–7), and on the compatibility of two *civitates* (pp. 57 ff.); a discussion by the same of Roman rule and of the nature of Augustus's ordinances (doubtful if they are all really edicts, in spite of λέγει, and note that Gaius 1, 5 is confirmed); the Greek tribunals by WENGER; the *quaestiones* and the governor's jurisdiction by STROUX; and the new procedure *de repetundis* by the same.

S. SOLAZZI, *Di una pretesa legge di Augusto relativa all' Egitto*, *Aegyptus*, IX, 296–301, makes a good case for holding the clause *quod.....datum est* in Ulpian D. 1, 17, 1 to be a gloss. It is clear from

Modestinus D. 40, 2, 21 and Tac., *Ann.*, 12, 60 that there was a constitution of Augustus allowing the prefect of Egypt to exercise the *iurisdictio voluntaria*. D. 1, 17, 1 makes a *lex* give him the *imperium* and regulate its enjoyment. Why a *lex* in this case, which at the beginning of the empire was not distinct from the other? A constitution is more likely, perhaps the same as that mentioned by Modestinus and Tacitus. This would, however, be a *lex* in the speech of a post-classical glossator. The result is confirmed by a critical examination of the passage.

*B.Z.*, XXIX, 6–34, contains the first part of *Die rechtliche Stellung und Organisation der griechischen Kloster nach dem justinianischen Recht*, by B. GRANIĆ. Monasteries were first recognized in ecclesiastical law by the Council of Chalcedon, which subjected them to the local ordinary. But *de facto* they remained independent and very important. Hence Justinian's comprehensive regulation of monastic life, enforcing the principle laid down at Chalcedon. There follow sections dealing with various aspects of Justinian's law, but the treatment does not touch papyrology, nor are papyri mentioned in the list of *Quellen* (pp. 6–7).

### 7. PALAEOGRAPHY AND DIPLOMATIC.

The most important publication for this section is A. S. HUNT's *A Greek Cryptogram* (*Proceedings of the British Academy*, XV), elucidating the problem of a magic papyrus (now at Michigan) written in a curious "secret alphabet." It has been reviewed by PREISENDANZ (*Ein Papyrus in griechischer Geheimschrift*) in *Gnomon*, V (1929), 457–8, and A. D. NOCK in *Cl. Rev.*, XLIII, 238, both concerned chiefly with the magical content. T. W. ALLEN in *Cl. Quart.*, XXIV, 40–1 points out similarities between certain of the signs employed in the papyrus and medieval tachygraphic and other signs.

SCHUBART's *Griechische Palaeographie* has been reviewed by H. I. B[ELL] in *J.H.S.*, XLIX, 127–9 (laudatory, with some criticism of details).

J. C. NABER in *Observatiunculae ad papyros iuridicae* (*Mnemosyne*, LVII, 73–151, ctd. from LVI, 138) discusses, among other points, the form employed in the subscriptions of witnesses.

I know only from a reference in *Lit. Zentralbl.* of an article by J. ZEITLER, *Über das Dekorative in den klassischen Schriften*, in *Jahrb. d. deutschen Vereins f. Buchwesen*, 1928, 67–8.

*Titles of address in Christian Greek Epistolography to 527 A.D.* (*Cath. Univ. of America, Patristic Studies*, XVIII) by Sister LUCILIA DINNEEN, S.S.J., should perhaps be mentioned here, although it does not deal primarily with papyrus letters.

### 8. LEXICOGRAPHY AND GRAMMAR.

J. H. MOULTON and G. MILLIGAN's *Vocabulary of the Greek Testament* has been completed by the publication of Part VIII, *ὑακίνθινος—ὠφέλιμος*, pp. i–xxx (introduction, etc.) + 647–705 (text). F. PREISIGKE's *Wörterbuch der griechischen Papyrusurkunden*, which at the end of vol. II had reached the end of the alphabet, has been carried a stage further by the publication of vol. III, parts 1 (Berlin, 1929, pp. 1–112) and 2 (same date, pp. 113–224). These commence the publication of the numbered 'Abschnitte' (mainly lists of words) to which systematic reference is made in the first two volumes. They cover sections 1–10, *viz.*: 1. Latin Words; 2. Kings, Emperors and other rulers (a list of the chronological data given by the papyri); 3. Consuls (in chronological order of their consulates with references to the papyri); 4. Indictions; 5. Eras; 6. Months; 7. Days (*viz.* *εἰδοί*, etc.); 8. Offices, Officials and similar designations, in alphabetical order; 9. Titles of honour; 10. Military terms down to *τριηράρχημα*.

B. MEINERSMANN, *Die lateinischen Wörter und Namen in den griechischen Papyri* (see *Journal*, XIII, 118; XIV, 156; XV, 135), is reviewed by M. HOMBERT in *Rec. belge*, VIII, 560–2. A. H. SALONIUS, *Zur Sprache der griechischen Papyrusbriefe* (see *Journal*, XV, 135) is reviewed by A. JURET in *Rev. ét. anc.*, XXXI, 106–7. E. MAYSER, *Grammatik der griechischen Papyri aus der Ptolemaerzeit*, II, 1 (see *Journal*, XIII, 119, 247; XIV, 156; XV, 135), is reviewed by H. MELTZER in *Indogerm. Forschungen*, XLVI, 290 ff., by K. DIETERICH in *B.Z.*, XXIX, 55–7 (who draws attention to the beginnings of Modern Greek idioms), and by H. FRISK in *Gnomon*, V, 35–41. PREUSCHEN-BAUER, *Wörterbuch* (see *Journal*, XIII, 18; XV, 134), is reviewed anonymously in *Journal of Religion*, IX, 157 (inaccessible to me), and by P. THOMSEN in *Phil. Woch.*, XLIX, 245–7, and this and F. M. ABEL, *Grammaire du Grec Biblique* (see *Journal*, XV, 134), by A. E. BROOKE in *Journ. Theol. Stud.*, XXX, 201–2. U. POHLE, *Die Sprache des Redners Hypereides* (see *Journal*, XV, 113), is reviewed by the late G. AMMON in *Phil. Woch.*, XLIX, 1313–18.

The much-discussed word *ἐπιούσιος* has been further discussed, this time by P. W. SCHMIEDEL in *Phil. Woch.*, 1928, 1530–6, and by A. DEISSMANN in the *Reinhold-Seeberg-Festschrift*, I, 299–306.

The word *ἀστός* is discussed by V. Chapot in *Rev. ét. anc.*, xxxi, 7–12 (see § 4). P. Jernstedt in *A.Z.*, lxiv, 129–35, *à propos* of the form *υπωρα* "fruit" in P. Oxy. ii, 298, shows that there is a Coptic form ϩⲩⲡⲱⲣⲁ, and traces the form in late Greek, etc. The same writer in *Aegyptus*, x, 73–9, reads in *Monastery of Epiphanius*, ii, No. 624, line 6: *ὁ υἱὸς τοῦ κατᾶ* Κολότσε, and understands *κατᾶ* as *καδᾶ*, gen. of *ὁ καδᾶς=καδοποιός*. He also identifies a word *μιξοπόλιος* in a Moscow *inedituum* and in *Sammelb.* 5825, 1 (="graumelier," from *πολιός*), and proposes *ὁλοπόλιος* (which occurs in Malalas) for *ἁλοπόλιος* in P. Klein. Form., 141, 1. Lastly he recognizes the place-name *Εὐφρόσυνον* in P. Lond. 1684, 4.

Chr. G. Pantelides has contributed an article entitled *προσθήκη καὶ ἀφαίρεσις σ πρὸ συμφώνου* to *Byz.-neugr. Jahrb.*, vi, 401–31. This has reference to cases like *κάνθαρος*—Mod. Gr. *σκάθθαρος*, and makes no use of papyri.

Liddell and Scott, Part iv (which appeared during the year), is reviewed by E. Harrison in *Cl. Rev.*, xliii, 189, and by P. Maas in *J.H.S.*, xlix, 298–300.

A work by Giuseppe Sacco entitled *La koinè del Nuovo Testamento e la trasmissione del sacro testo* (Rome, F. Ferrari, 1928, xxxi + 332 pp., 8°) is known to me only from a list of new books printed on the cover of *Indogerm. Forsch.*, xlvii, Heft 4.

The large volume of essays entitled *Donum Natalicium Schrijnen* (926 pp., N. V. Dekker and Van de Vegt, Nijmegen-Utrecht, 1929) contains several which may be mentioned here: G. N. Hatzidakis, *Zur Entstehung einiger Verbalformen im Neugriechischen* (pp. 419–20); G. Anagnostopulos, *Ein kleiner Beitrag zur neugriechischen Syntax* (pp. 421–2); A. Meillet, *Les adjectifs grecs en -τος* (pp. 635–9); D. C. Hesseling, *Τί ἐμοὶ καὶ σοί;* (pp. 665–8). The volume contains other essays on Greek (and Latin) topics, but neither they nor those named above refer directly to the papyri.

Herman Ljungvik's article "Ur Papyrusbrevens Sprak" in *Eranos*, xxvii, 166–81, is divided into eleven sections: 1. inflection of *εἶναι*; 2. in P. Oxy. 1837, 6 *ἀνεστάτησεν* means *ἀνεστάτωσεν*; 3. construction *κατὰ σύνεσιν*, *à propos* of P. Oxy. 1069, 9 ff., *τὸ πορφύρειν μετὰ τῶν συνέργων κεῖντε*, "the purple and the materials are lying ready"; 4. discussion of the phrase *τὸν δὲ θεὸν σοῦ* in P. Oxy. 941, etc.; 5. use of the present subjunctive in prohibitions, and of pres. and aor. subj. in positive commands; 6. accus. and infin. in indirect question; 7. *ὅτι* before indirect question; 8. P. Oxy. 2154, 10 ff., *μὴ καταφρονήσῃς ὅτι ἐκ τιμῆς καὶ μὴ ἀποστίλῃς* means "do not despise (the wool) because it is dear and omit to send it"; 9. in P. Oxy. 2150 and elsewhere read *ᾗ τάχος* "as soon as possible"; 10. *εὑρεθῆναι* and *συνευρεθῆναι* in late Greek can mean simply "come (with)"; 11. in B.G.U. 1081 *εὐκαιρίαν εὑρὼν τοῦ πρὸς σὲ ἐρχομένου* means "having found a person who was setting out for where you are (and could carry my letter)." The article contains other observations which it is impossible to include in a short summary.

### 9. General Works, Bibliography, Miscellaneous Notes on Papyrus Texts.

P. Collomp's *La papyrologie* (*Journal*, xv, 135) has been reviewed by P. Collart (*Rec. de phil.*, 3 Sér., iii, 76–7).

B. Olsson has published a general account of the results of papyrology, particularly of the letters on papyrus (*De grekiska Papyrusfynden i Egypten*, Stockholm, Wahlstrom e Widstrand, 1929, pp. 110), which I know only from a reference in *Aegyptus*, x, 103. Nor have I seen an account by M. Norsa of papyrology in Italy, entitled *Papiri e papirologia in Italia*, which appeared in *Historia*, iii, 208–37 (see *Aegyptus*, x, 103). For two useful and interesting sketches of letters on papyrus see § 3, *General*.

*B.Z.*, xxix, 86–157, contains the usual bibliography, which includes (94–8) a section on papyri. A bibliography in *Byz.-neugr. Jahrb.*, vi, also includes (279–93) a papyrological section; and papyrological publications are further dealt with in a *Bibliographische Beilage* to *Gnomon* (v). M. Hombert continues his *Bulletin papyrologique* in *Byzantion*, iv, 25 pages, covering the year 1927–8. Reference may also be made here to *Bursian's Jahresbericht, Bibliotheca philologica classica* (Jahrgang lv, 1928), Leipzig, Reisland, published in 1930 (not seen by me), which appeared as this was going to press. It deals with papyri and ostraca.

C. W. Keyes analyzes the papyri B.G.U. 607, C. P. Rainer 16 and 14, and P. Lond. 332 with a view to determining the character of the transactions to which they relate. *The Financial Transactions of Didymus: A new Interpretation of B.G.U. 607*, in *Journal*, xv, 160–3.

Robert C. Horn gives an emended and restored text, with a translation, of P.S.I. 798. Some of his suggestions seem to me far from likely. *P.S.I. 798: Fragments of Documents regarding Fishing*, in *Cl. Phil.*, xxiv, 164–8.

For a note by Peterson on the *ὠκεανέ* of P. Oxy. 41, etc., see § 1 above.

In the course of a series of notes under the general heading *Kritisch-lexicalisches*, P. JERNSTEDT deals with: *Monastery of Epiphanius*, II, 624 (revised text); U.K.F. 151; S.B. 5825; P. Lond. V, 1684; P. Cairo Masp. 67068, in *Aegyptus*, X, 73-9. JERNSTEDT has also published a note on the word *υπωρα* in P. Oxy. II, 298, for which see § 8 above. For H. LJUNGVIK's notes on various Oxyrhynchus and one Berlin papyri see § 8.

### 10. MISCELLANEOUS AND PERSONAL.

M. HOMBERT comments sympathetically on GRADENWITZ's proposals for organizing the science of papyrology in an article entitled *Comment favoriser le développement de la papyrologie?* in *Chron. d'Égypte*, IV, 286–92. A lecture on the same subject delivered by him to the Société pour le Progrès des Études Philologiques et Historiques is summarized, under the title *La papyrologie et la collaboration internationale*, in *Rec. belge*, VIII, 665–6.

P. VIEREck, *à propos* of an excavation at Hermopolis undertaken by the Hildesheim Museum, which is apparently to be of the systematic type, directed to the determination of the town plan, adopted by the University of Michigan at Karanis, speaks of his and ZUCKER's excavations at Philadelphia and expresses the wish that the Egyptian Government would, before it is too late, safeguard the ruins of the Fayyûm villages from utter destruction. If only one could feel confident that his words would find a response! *Grabungsmethoden in Aegypten*, in *Forschungen und Fortschritte*, VI, 33–4.

An article by H. IBSCHER on *Die Wiederherstellung der Papyrus-Dokumente* (*Forsch. u. Fortschr.*, 1929, 158–9) should be of some importance in view of its author's standing, but is unfortunately inaccessible to me.

B[RECCIA] publishes an obituary notice of THÉODORE REINACH in *Bull. Soc. Roy. d'Arch. d'Alex.*, no. 24, 78–9.

# NOTES AND NEWS

Members of the Egypt Exploration Society will learn with pleasure that their President, Mr. Robert Mond, has been offered and has accepted the Honorary Degree of LL.D. in the University of Liverpool. Mr. Mond has for many years been closely connected with the work done by the University, through its Institute of Archaeology, in Egypt and elsewhere in the Near East, and it is therefore peculiarly fitting that this recognition of his services to Egyptology, and above all of his devoted work in the excavation, recording and preservation of the private tombs at Thebes, should come from Liverpool.

The Society re-opened its excavations at Armant shortly before Christmas. The late start of the season was due to the difficulty of finding an excavator to take charge, more particularly as none of the previous year's staff was available. Eventually Mr. F. W. Green consented to direct the expedition, with Mr. O. H. Myers as his chief assistant in charge of the actual excavation. They opened the work with the help of Mr. H. W. Fairman, who took his Certificate in Archaeology at Liverpool last summer, and have since been joined by Mrs. Green, Miss Nora Scott and Mr. Van de Walle, lecturer at Liége, who took part in the Society's work at Abydos in 1925–26.

The main work of the season up to date has been the continuation of the excavation of the Bucheum, whose limits to the south-west are now defined. Six new burial-chambers in that quarter have been excavated, but in every case the sarcophagus was robbed. Two new stelae, one of Tiberius in its original position, have been discovered. At the north-west end four new chambers together with their plundered sarcophagi have been discovered. Although very little beyond scraps of gold foil, beads and bones was found in the sarcophagi, the results are rapidly leading to a complete plan of the Bucheum.

Simultaneously with this work several tombs dating from the Earlier Intermediate Period to the Roman have been excavated, and although all were robbed a number of interesting objects has been recovered, including a considerable quantity of late pottery, which will be important for a corpus.

Mr. Mond reached Luxor towards the end of January and has seen much of the work in progress. How far the Bucheum is to be left open as a monument to visitors will be decided after consultation with other excavators now in Egypt.

The lectures announced in our last number as having been arranged for the winter (1929–30) are well in progress. The first, by Dr. John Johnson in November on "The Search for Lost Literature in the Rubbish Heaps of Egypt," drew a large and appreciative audience. He described in detail the work of exploration and the successive steps by which papyri have been discovered and saved from destruction, from the scientific treatment of cliff-excavation to the removal of the papyri which had in many cases been employed as wrappings round the buried mummies. On February 5th, under the title "Cave Excavation in Palestine 1928–29," Miss D. A. E. Garrod, of Newnham College, gave a full account of the exploration work carried out by herself and others on behalf

of the British School of Archaeology in Jerusalem. This lecture was delivered in the afternoon and was also well attended. Another afternoon lecture was given by Dr. H. J. Plenderleith, of the British Museum Laboratory, on the "Preservation of Antiquities from Egypt." Once more the Council of the Royal Society has allowed the lectures to be held in its Meeting-room at Burlington House, a privilege greatly appreciated by all who are able to attend them. Other lectures, promised by Professor Griffith and Mr. Alan W. Shorter, had not been delivered at the time of going to press.

On November 11th, all members of the Society were invited to a Reception at the Wellcome Historical Medical Museum in Wigmore Street. In the absence of Dr. Wellcome, Founder and Director of the Museum, who was in America, Dr. C. M. Wenyon, F.R.S., Director-in-Chief of the Wellcome Bureau of Scientific Research, received the guests, who must have numbered nearly two hundred. Mr. Warren R. Dawson read a paper on "Egyptian Medicine," and short speeches were made by Dr. Wenyon, Sir Frederick Kenyon, and Mr. Robert Mond. A cablegram from Dr. Wellcome was read, in which he expressed his regret at being unable to be present.

All the guests were enthusiastic in expressing their appreciation of the Museum—which is a veritable storehouse of medical appliances, illustrating the history of medicine and surgery from the earliest times to the present day—and in their thanks to Dr. Wellcome for his hospitality, and to Mr. Malcolm, the Conservator, for all the trouble he had taken in making the necessary arrangements for this most enjoyable evening.

Mr. Dawson's paper has since been printed in *Nature*, Vol. 124, pp. 776–7, and in the *Medical Press*, Vol. 179, pp. 436–8.

Visitors to the Egyptian galleries of the Manchester Museum and the British Museum have doubtless both seen and admired the wonderful facsimiles of Theban tomb-paintings due to the skill and industry of Mrs. de Garis Davies. These form part of a much more extensive collection of such facsimiles which Mrs. Davies has made on behalf of Dr. Alan Gardiner during the past twenty years. In the course of his stay in Egypt last year Mr. John D. Rockefeller, jun., acquired a keen interest in Egyptian colour-work, the firstfruits of which were the munificent grant which he made to the Egypt Exploration Society for the publication of the temple of Abydos (see *Journal*, xv, 272). This grant he has now followed up by another of similar munificence, which will make possible the publication in the finest conceivable style of more than a hundred of Mrs. Davies' copies of Egyptian paintings. The work is to appear under the auspices of the Chicago Oriental Institute, which, under Professor Breasted's untiring leadership, has initiated so many great archaeological enterprises. The editorship and the preparation of the explanatory text will be in the hands of Dr. Alan Gardiner. All lovers of ancient art, as well as all Egyptologists, are being placed under a deep obligation by this grandly conceived undertaking set on foot by our American friends.

The work of copying the temple of Sethos I at Abydos, reported upon in the last number of the *Journal* (p. 272), is progressing well, though the departure of Mr. Beazley on Feb. 1st reduced the staff to three. In view of the widening of our original plans through the generosity of Mr. Rockefeller and the arrangement with the Oriental Institute of Chicago, it was decided to include in the first volume not only the religious scenes of the seven central chapels but also the accompanying ceiling decorations, door-jambs, etc.

For this reason it will be no easy task to complete the material for Volume I in the present season, though Miss Calverley writes that this is still her aim and endeavour, and that she is not without hope.

Dr. Alan Gardiner has been elected a member of the Commission for the great German hieroglyphic dictionary, with the preparation of which he was actively connected from 1902 to 1910.

Mr. H. I. Bell writes:

"When in 1895 Mr. H. Martyn Kennard presented to the British Museum a large number of the Petrie Papyri, certain of those included in the selection could not be found. As they had mostly been published, and in view of the possibility that they might be discovered subsequently, provision was made for them when the papyri were numbered for the Museum inventory, the fact of their disappearance being noted in the 'Table of Papyri' in vol. III of the Catalogue. The numbers assigned to them were:— 505 = Petrie II. 2 (1); 506 = Petrie II. 2 (2); 509 = Petrie II. 3; 510 = Petrie II. 4 (1); 511 = Petrie II. 4 (2); 512 = Petrie II. 4 (3); 515 = Petrie II. 4 (6). As the years passed and no trace of the missing papyri was found, the hope of their coming to light faded. It is therefore very gratifying to be able to announce that they have at length re-appeared. They were found a few weeks ago in the offices of a firm to which they had been sent with a view to their being autotyped.

"They are now incorporated in the Museum collection. As already remarked, most of them were published in the Petrie volume, but there are two or three unpublished fragments. Mr. C. C. Edgar, who hastily examined several of them on a recent visit to the Museum, has made some improvements in the texts."

Mr. W. R. Dawson writes:

"Referring to the interesting bronze figure of Bes carrying a child described and figured by Dr. Hall in the *Journal* (XV, 1, with Pl. i), it is interesting to note that the MacGregor Collection contained a small bronze statuette in which the position is reversed—Bes, instead of carrying, is carried. The god is mounted astride on the neck of an achondroplastic dwarf. The object is Lot 1310 in Sotheby's *Sale Catalogue of the MacGregor Collection* (1922) (p. 171 and Pl. xxxv), but no indication of age or provenance is there given."

We have received the following from Dr. H. R. Hall:

"On p. 159 of *Journal*, XV, Miss M. L. Tildesley writes that the anthropoid coffin of Mut-em-mennu, No. 6703 in the British Museum, and the Roman female mummy 6704 found near (not in it), are both 'assigned by the British Museum to the Roman period,' 'little doubt' having been 'entertained that they belonged together.' This is no longer correct, nor has it been so for the past year or two. Whether this mummy was really found near the coffin or not I do not know, but they certainly do not belong together, for while the mummy is Roman, as Miss Tildesley rightly says, the coffin is as clearly of the Nineteenth Dynasty (less probably the Twentieth), to which period also such a name as Mut-em-mennu belongs. The two objects have been separated in the exhibition cases for some time past.

"On p. 284 M. Černý notes that of the workman 'Penēb the British Museum has two

stelae offered to Mersegert, Nos. 272 and 273' (*Hierogl. Texts in the B.M.*, v, Pl. 42, and vii, Pl. 28). He goes on to say 'the publication has mis-read the name of the donor as *ḥrỉ ỉs·t m S·t Mɜʿ·t* , but it is certain that  is to be read.' I agree, but M. Černý gives the impression that the name was mis-read on both occasions of its publication, whereas it is only in regard to No. 273 (*H. T.*, vii, Pl. 28) that this is the case. In 272 (*H. T.*, v, Pl. 42) the name was correctly given as . M. Černý has implicitly corrected the dates of these stelae, which it is interesting to find belong to the late Nineteenth, not Eighteenth, Dynasty."

We learn that Professors Lake and Blake, who a year or two ago brought back from Sinai the famous inscriptions in the proto-Semitic script, are now engaged in another short expedition to Serâbîṭ el-Khâdim, where they hope to find more material of the same kind. They are accompanied by Professor Butin, who edited the texts found on the previous occasion.

The excavations of the Egyptian University in the neighbourhood of the Gîzah Sphinx, under the leadership of Selîm Bêy Ḥasan, have met with immediate success. The most important find is that of the tomb of a noble of the Fifth Dynasty called Rawēr. The tomb has two galleries giving access to a number of *serdabs*, about six large and fourteen small. The portion of the tomb so far laid bare is 120 metres long and from 20 to 40 metres wide, and contains over sixty chambers, including the *serdabs*. No fewer than forty statues of the owner were found; of these three only are intact, cut out of a single block of sandstone. The others are mutilated or completely broken up. No burial-chamber has as yet been found.

Beside this tomb is a smaller *maṣṭabah*-tomb belonging to another member of the same family. In the sarcophagus of this tomb lay a necklace consisting of about three thousand beads of gold and lapis lazuli.

We announce with very great regret the death of Jamieson B. Hurry, M.D., which took place on Feb. 13th. Dr. Hurry had made his name known to Egyptologists by his admirable monograph on Imhotep, which went into a second edition shortly before his death.

Adolf Erman's delightful book, *Mein Werden und mein Wirken*, is a noteworthy proof that a man can be an Egyptologist and yet write simple, straightforward, intelligible prose, a fact which one is occasionally inclined to doubt. It is not surprising to find Erman himself expressing his gratitude to those who in his childhood impressed on him the importance of style in writing. The whole book is fascinating, and it is hard to say what is most attractive, the romantic history of the earlier generations of the Erman family, the pictures—not all favourable—of distinguished Egyptologists and Curators of Museums, or the accounts of travel in Egypt and of the development of the great German museums. Dr. Erman is all too modest about his own achievements, and a stranger to Egyptology might read his reminiscences without realizing in the least how much the science owes to his genius, his devotion and his untiring patience.

Several writers on kindred studies have been kind enough to send us copies of their books, which we regret we cannot review, owing to lack of space. Among these we notice C. L. Woolley's *The Sumerians* (Oxford, 1928) and C. J. Gadd's *History and Monuments of Ur*. It is indicative of how much is yet to be learnt about early Mesopotamia that these two books are in complete disagreement both as to the age of the early royal tombs of Ur and as to the nationality of its earliest inhabitants.

J. Garstang's *The Hittite Empire* is a new edition of a well known book, which has been almost completely re-written in the light of recent discoveries, and in particular of the translations so far issued of the Boghaz Keui archives.

R. W. Rogers's *A History of Ancient Persia* is a scholarly and comprehensive history by one who is already known to orientalists by his *History of Assyria and Babylonia*.

With regard to the writing  discussed by Dr. Černý in his article on an ostracon dated in the Renaissance (*whm mśwt*), *Journal*, XV, 198, Dr. Černý now notes that this form is used in the London Medical Papyrus, 6. 1 and 8. 13. This papyrus is assigned by Möller in *Ä.Z.*, LVI, 42, to the reign of Tutʿankhamūn, and, if this is correct, the writing in question, previously known only from the ostracon and from a text of Sethos I, goes back at least to the end of the Eighteenth Dynasty.

The official dates of appearance of the *Journal* are now May 1st and November 1st. The dates, it will be seen, have been advanced each by a month, owing to the impossibility of getting proofs read and returned in time for an October issue while authors are scattered during the Summer Vacation. Articles intended for publication in any number should be sent in, if possible, before the appearance of the previous number, and at latest within a month of this.

Those who so kindly consent to review books for us now receive with the book a note of the date on which their review should be in the Editor's hands. It will save a great deal of annoying correspondence if they will do their utmost to conform to the date given, or, on finding this to be impossible, write at once suggesting a later date.

Will authors please note that the *Journal* has no fount of hieratic or demotic type, and that consequently all hieratic and demotic groups in articles have to be reproduced by the making of what is technically known as a zinco. To make a good zinco it is necessary to have a clear bold outline written in dead black (Indian ink) on white paper. All such groups should therefore be drawn in this way on a separate sheet of paper and marked with the scale at which they are to be reproduced; each should be given a number indicating its position in the letterpress.

Many authors still cause unnecessary trouble and expense by failing to conform to our conventions with regard to references, especially in citing periodicals. These should be cited by their volume number, not their year; if it be thought necessary to add the year it should be placed in round brackets after the volume number. The words volume (vol.) and page (p. or pp.) should normally be omitted. This *Journal* should be quoted as *Journal*, not *J.E.A.*

Among recent and much quoted books A. H. Gardiner's *Egyptian Grammar* should be given as Gardiner, *Eg. Gramm.*, and the new German Hieroglyphic Dictionary as *Wb. d. aeg. Spr.*

In future the *Zeitschrift für ägyptische Sprache,* hitherto cited as *Zeitschr. f. äg. Spr.*, will, in the interests of economy and in conformity with continental usage, be abbreviated into *Ä.Z.*

The Library Committee wishes to call the attention of members to the fact that there are in the Library a few duplicate volumes which can be purchased by members. The Secretary will send lists of these books with prices marked to any would-be purchasers. No printed catalogue of the Library exists, but lists of recent acquisitions are to be printed in the Annual Report for the benefit of members not residing in town and unable to consult the Library catalogue.

# NOTICES OF RECENT PUBLICATIONS

*Egyptian Letters to the Dead, mainly from the Old and Middle Kingdoms.* Copied, translated and edited by ALAN H. GARDINER and KURT SETHE. London: at the Offices of the Egypt Exploration Society.

A very remarkable and valuable book, this; the strangeness of its contents renders it one of the most interesting Egyptological works that have appeared for some years past. Here we have, edited by two of the foremost Egyptian philologists, a collection of extraordinary letters, several of which are now first published, and of which only one had previously been recognized for what it is. Thanks to Gardiner and Sethe we now know that it must have been a fairly common custom for the Egyptians, when in difficulties of a certain kind, to appeal to their deceased relatives for help by means of letters.

The whole business is beautifully logical. It often happens that a dead person will, from a grudge that he bears us, afflict us with sickness or some other disaster; for unfortunately the dead have wide powers in this direction. To deal with these beings directly is difficult, the magical rituals devised for the purpose being somewhat unreliable, especially when we do not know who our ghostly enemy is. Luckily there are efficacious means of dealing with such spirits indirectly. Many tombs bear conspicuous warnings that those who injure or defile them will be prosecuted after their death by the owners of the tombs before "that august Tribunal of the Underworld." Very well: when we or those dependent on us are afflicted by malignant dead persons, we will get our departed friends to prosecute them too in the next world, on our behalf. After all, the dead are the best people to deal with the dead, especially since they can identify the enemy when we cannot. This law-court of the Underworld, presided over by the Great God, is a very valuable institution in other ways. On the death of a person who has treated us badly in life, and against whom earthly authorities would not or could not award us our rights, we can turn the matter over to a departed parent or spouse, who will obtain justice for us in that higher tribunal. Again: when it happens, as it sometimes does, that it is our deceased relative himself who is afflicting us, we can deposit a written complaint against him before the Assize of the West, though this is not such a simple matter.

We of course communicate with our departed friends by letter. That the dead can read is obvious, for in the after-life they retain all their faculties; and if the addressee is illiterate, there are others who will read the letter to him. As to transmitting it, since the dead, who spend much of their time in their tombs, take the food-offerings that we put down for them there, they can also take a letter if we leave it in the same place; and if, by an artful combination, we write the letter on the bowl containing an offering, delivery is as good as certain. As to the form of the letter, it is a good thing to begin by recalling some incident which shows that we, or the person on whose behalf we are writing, parted from the addressee on good terms; we will then state our trouble, and, while calling on him to take the necessary steps, work in a reminder that powerful as he is he depends on us for the upkeep of his tomb and the supply of his offerings, so that if he does not help us we have the power to make things very unpleasant for him. This is not perhaps very delicate, but it is necessary because the dead, in the very different circles in which they now move, may easily lose interest in our affairs. Finally, quite apart from appeals for present help, we can sometimes by means of a letter establish a claim on dead people's good will for future contingencies; thus, if we befriend an orphan and assure his future, it will do no harm to lay before his parents a brief statement of what we are doing.

Such are the beliefs and practices evidenced for me by these letters, which range from the Sixth to the Nineteenth Dynasties; four of them are earlier than the Middle Kingdom, two are of the Middle Kingdom, and three of the New Kingdom. Two of them, however, are relegated to an Appendix because the Editors are not sure that they were addressed to the dead. One only of the letters—and that the latest—is on papyrus; another—the oldest—is on linen, and the rest are on bowls. All are of course written in hieratic. In their opening formulae they often reproduce or imitate those of ordinary letters to the living, which is what might be expected.

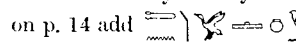
The work consists of a chapter of "Translations and General Descriptions," a chapter of "Philological Commentaries," and the Plates. The first chapter ends with a very interesting section of "Summary and Conclusions" in which the beliefs shown by the letters are discussed and illustrated by passages from other texts. The whole treatment is of the high order that one would expect from Gardiner and Sethe. I hate to say anything about the price, because my copy was a gift from these two friends; but two pounds ten shillings for 32 pages (though large) of text and 17 plates of which only two are photographic is, to say the least of it, stiff. All students ought to possess this book, but all will not be able to.

Subjoined are a number of notes on the texts and the editors' treatment of them:

## I. The Cairo Linen Document.

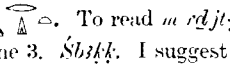
Line 1. The whole analogy of epistolary greetings in Middle Kingdom letters points to *mj mrr·f* at the bottom of the line meaning "as he (the writer) desires." We have two writers here, a female and a male, so that the suffix should refer to the latter, and it will be noticed on the photograph that the  stands somewhat to the left, under "a son says to his father." Now under this  apparently stood not, as the editors have transcribed it, an oblique line—a kind of *Fullstrich* unknown, I believe, in hieratic documents—but a damaged [1], the suffix referring to the other writer, the mother. The proper disposition of the text would no doubt have been , to be read *mj mrr·ś* (referring to *śnt* "a sister" at the top), *mj mrr·f* (referring to *sꜣ* "a son" at the top)[2]; but for some reason the , as I take it to be, is misplaced.

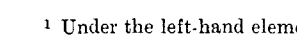
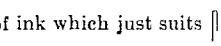
On the left of the beginning of this line, visible in the photograph, is a much distorted vertical stroke, dividing the first line from the following text, as in the contemporary letters *Hieratische Papyrus...zu Berlin*, III, Pl. ii; *Ann. Serv.*, XXV, 242 foll.; this has been omitted in the transcription.

Line 2. *Tnw r*. The translation "*oral* reminder" is not perhaps very happy, since the expression, whatever it may exactly mean, refers to written communications in all these cases. To the examples cited on p. 14 add  in an unpublished letter of the early Middle Kingdom at Cairo, where, however, the context does not help to elucidate the meaning.

The editors' translation of lines 2–3 is as follows: "This is an oral reminder(?) of the fact that the messenger of Beḥesti came to the couch when I was sitting at thy head, when they caused...Iy to be summoned..., and when thou didst say 'Protect him...!'." But the messenger came, not when Iy was summoned and when his father said "Protect him!" but before those events. There is just the same difficulty in the translation of II., but in that of III. it is got round in the wrong way by reducing the conjunction *m*, which certainly means "when," to a mere "and." *Tnw r pw nw* and variants must therefore serve to recall not a single fact or event but a larger time-field comprising the successive events narrated in lines 2, 3 of each of I., II., III.

*Mśḳꜣ*. The editors assume without discussion that this word here means "couch." This seems to me very doubtful because (*a*) *mśḳꜣ* nowhere else has this meaning, (*b*) one would then expect the suffix *·ḳ*, "*your* couch," (*c*) we have *ꜣtt* "bed" in the next line, and (*d*) the bed is shown by the reference to "the wood of this my bed," and by the determinative of *ꜣtt* to have been primarily a wooden structure. In view of these points, it is difficult not to give *mśḳꜣ* its usual meaning and translate "the messenger of Beḥesti came for some leather."

. To read *m rḏjt·j njś·tj*, "when I caused (with *śḏmt·f*) to be summoned," gives a better sense.

Line 3. *Śbꜣḳḳ*. I suggest a meaning "avoid" or the like for this verb with the dative. The example cited from the Berlin letter is too obscure to help much, but "avoid" is not out of the question there. Note that the verb is intransitive; in the Berlin letter we have *śbꜣḳḳ·n śwt sš·k n śn·k ỉm*, and probably the  of the Coffin Text example is to be taken as dative: *śbꜣḳ n·f spsw*, "the *spsw* keep clear of(?) him." A morphological parallel to *śbꜣḳḳ* is the verb , *Ebers*, 38. 1, 21.

[1] Under the left-hand element of the sign is a tear in the linen, but on the right-hand edge of the tear is a small trace of ink which just suits  written as in *njś*, line 2.

[2] It may be felt that the first person would be more appropriate, *mj mrr...* being apparently part of the greeting which addresses the recipient in the second person; there is, however, some analogy for this virtual anacoluthon in unpublished letters of the early M.K. beginning *bꜣk nj pr-ḏt X ḏd n Y*: *ỉw ḥrt·k m ꜥnḫ...mj mrr bꜣk ỉm*.

*Śdḥ*. A meaning "to conceal" seems more probable than "to protect," in view of the determinative , which is also that of *śdgȝ* "be hidden," *ỉmn* "hide" (references Gardiner, *Grammar*, Sign-List, A 4), and which probably represents a man cowering. This meaning gives a good sense in the *Pyramids* examples, where the word has the same determinative: "O Nut, spread thyself over thy son Osiris K., to hide him from Sēth," 777; "O Osiris, thy mother Nut has spread herself over thee, that she may hide thee from everything evil," 825. *Cf.* also the simplex *dḥ* in the passage *Pyr.* 459, which may well mean: "men hide: the gods fly away," and where the verb is determined in one text with  and in the other with what seems to be a small domed building (perhaps as a hiding-place). I would therefore translate "hide him, for fear of Iy the elder."

"For fear of Iy the elder." This may perhaps mean, as the editors assume, for fear of Iy the elder's anger if the child is exposed to danger, and this meaning is the only possible one if Iy the elder is Iy the father of Sʿankhenptaḥ who is later urged to avenge the wrong; but the more obvious surface-meaning is, for fear of what Iy the elder will do to him if he gets him. There is possibly a difference in meaning between *n śnḏ* and *m śnḏ*, study of which might clear up the matter.

. It is difficult to see why a verb "to rot" should have the determinative , but the normal Old Egyptian writing of *rjś* "be watchful" and its causative with this same sign is equally obscure. In discussing this word, the  of *Koller Pap.* 1. 2, apparently of brushing or trimming horses'  coats, might have been mentioned.

Lines 3–4. The sentence *rp ḫt.....nḏrwt·f* is extremely obscure, the meanings of both *rp* and *nḏrwt*[1] being unknown. There are several objections to the editors' translation: *(a)* if *ḫrt* is, as it seems to be, an adjective, it can mean only "which bears," and the meaning "if it should bear" cannot possibly be read into it, for the noun which it qualifies is strongly determined: *ȝwt·j tw*, "this my bed." Only "a bed which bears" could be equivalent to "a bed if it should bear"; *(b)* it is most unlikely that Sʿankhenptaḥ would speak of himself in relation to his own child as "one who keeps away a man's son" and not as "one who keeps away his (own) son"; *(c)* it is difficult to see what relevance the reference to "one who keeps a man's son away from his bedstead" can have to what precedes, or to the situation. *Nḏrwt*, doubtless, as the editors point out, derived from the verb *nḏr*, "to carpenter," may well mean "furniture," and thence by extension "household property"; cf. *ḫnw*, "pots" = "portable property." Hence I translate "may the wood of this my bed which bears me...(some transitive verb)...one who keeps a man's son away from his household property."

Line 7. . Unconsciously influenced by the fact that this begins a new line, the editors have assumed it to begin a new sentence of a kind unknown to grammar. Translate: "she has taken Ya'set, Yeti and 'Anʿankhi away from you (*m-ʿ·k*); she is taking away, etc."

Line 8. Chapters I and II give contradictory explanations as to the interpretation of *wn ʿȝj*; on p. 2 it is stated to refer to the son, on p. 16 to the mother. As *wn* is masculine, the former is to be preferred. That *sḏ·k* is used after *mȝȝ* instead of *wn ʿȝj* being resumed by the pronoun is not an objection to this view, for the collocation of "your son" and "the son of Isesi" has more force than the use of a resumptive pronoun.

For an example of *ʿȝ* "here" in Old Egyptian without determinative see *Pyr.* 248b.

. It seems unnecessary to give this the meaning, otherwise unknown, of subjection. Why not the usual meaning "with (*chez*)"? Waʿbet is apparently trying to transfer the whole household to her own premises.

Line 10.  may also be *śḏm·f*, "I come"; *rḫ* normally takes *śḏm·f* as direct object, without the intervention of *ntt*.

*Ḥr* here undoubtedly means "for the sake of," and it is difficult to see why the authors mention this alternative on p. 16 only to reject it for a translation which contradicts their statement on p. 11, second column. Irti comes asking her husband to litigate.

[1] The *Wörterbuch* gives "*nḏrwt* : *nḏrw*. Totb. Teile des Bettes." The only example in the Book of the Dead is *nḏrw*, an error for *śḏrw* as pointed out in the book under review, and the only example of *nḏrwt* would seem to be that in the passage now being discussed. The article in the *Wörterbuch* should therefore probably begin: "A.R.; Totb."

The following is a translation of the first 10 lines embodying the above remarks:

*A sister says to her brother* / *A son says to his father* "*Your state is like one who lives! a million times! May* {*Ḥa, Lord of the West* / *Anubis, Lord of Burial*}

*benefit you, as* {*he* / *she*} *desires!*

*It is a reminder of (the time when) a messenger of Beḥesti came for some leather when I was sitting by your head, and when I caused Irti's son Iy to be called in to avoid Beḥesti's messenger, and when you said "Hide him, for fear of Iy the elder! May the wood of this my bed which bears me.....one who keeps a man's son away from his household property!" But see, Waʿbet came with Isesi, they devastated your house and she took away everything that was in it to enrich Isesi; they wished to impoverish your son while enriching Isesi's son. She has taken* {*Ya'set* / *Yeti* / *ʿAnʿankhi*} *away from you; she is taking all your Honour's servants away after taking away everything that was in your house. Will you be calm about it? I had rather you took to yourself him who is here before you than that I should see your son with Isesi's son. Arouse your father Iy against Beḥesti, hasten against him! You know I come to you here for litigation with Beḥesti and A'a's son ʿAnʿankhi. Rise up against them*, etc."

The episode described in lines 2–4 has become in my attempted translation something entirely different from that envisaged by the editors. Behesti sends a messenger to the house on a trivial errand while Sʿankhenptaḥ is dying. The mother calls the son into the sick-room to keep him away from the messenger, the father enjoins that the boy be hidden and utters a curse against the man who would deprive him (the son) of his property. I suggest that a visit from anyone connected with Beḥesti on whatever pretext was regarded by the parents as a danger to their child. Was Beḥesti trying to kidnap him?

It may be objected that the episode in this form has no special relevance to what follows. But the episodes introduced by *ṯnw ʾ* in the two other letters (II., III.) which employ that phrase are even less relevant. In one the son reminds his father that the latter invited him to share a leg of beef, and in the other he reminds his mother that she consumed seven quails, provided by him, at a sitting. Both these reminders are preliminaries to complaints against the writer's deceased brother. This is a very curious feature of these letters. The only explanation that suggests itself to me is that in the set form followed by I., II. and III. it was necessary to begin by reminding the deceased of some situation *shortly before his death* which evidenced the good relations between him and the person wronged. In II. and III. we have the incidents just mentioned, in I. we have the father's solicitude for his son, on whose behalf the complaint is being made. We may say that such letters began by pointing out that the two persons concerned parted on excellent terms.

Line 13. The phrase *šrḏ? ib* possibly means "to say '*wḏ? ib·k*'"; *cf.* سلّم عليه = "he said: 'السلام عليكم'"; كبّر الله = "he said: 'God is most great'"; وحّد الله = "he said: 'God is one.'"

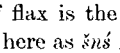
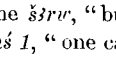
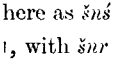
The use once of the determinative 𓀀 with Beḥesti's name tends to show, as the editors point out, that this man is dead; and ʿAnʿankhi is probably dead too. For in a judicial process each party must be represented in some form; and how can the court of the dead cite a living defendant? The evidence of the mastaba-inscriptions, dealt with on p. 10, does not contradict this; I think the editors have not evaluated it quite correctly. Two separate threats are there made against the evildoer. (1) "I will seize his neck as though he were a bird; I will make the living who are on earth fear the spirits (with variants)." This will undoubtedly happen on earth. (2) "I will be judged with him in that august Tribunal of the Great God" (and alternatively, of the other kind of man, "I will be his champion in the Necropolis, in the Tribunal of the Great God"). Surely this can happen only after the death of the tomb-visitor.

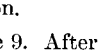
Such letters as I. to IV. may well have been the outcome of the statements of type (2) in the tomb-inscriptions, the petitioners arguing that if the dead can litigate in the Underworld against other dead in their own interests, they can do so in those of their own living relatives.

### II. The Ḳâw Bowl; Inside.

Line 4. I prefer to translate: "Am I being injured in your presence.....by my brother, after I buried him, and brought him," etc.

Line 5. Read "6 gallons of," not "6 (gallons of)" in the translation p. 4.

Line 6. One would expect the amount of flax to be specified. In one of the Ḥeḳanakhte accounts the unit of flax is the *šsrw*, "bundle," obviously the Coptic ϣⲟⲗ. It is difficult to take the word following "flax" here as *šnś 1*, "one cake," which would be too paltry to figure in the list of things owed. To read , with *šnr* as a writing of ϣⲟⲗ, has the objection that "one bundle of flax" is also a rather paltry item. I suggest as a possibility  "one kilt" (with  abnormal determinative, influenced by  in the preceding line), giving us "flax (for) one kilt," although grammatically this is open to objection.

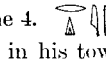
Line 9. After *dr*, possibly  with two -signs run together? The sign is over-long for one .

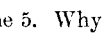
The transcription  is quite doubtful; further the burial seems to have been too humble (see p. 3)[1] for its occupant to have been a master of scribes. One would expect a word for relatives of some sort, analogously to I. 11.

Line 10. The sign after  is hardly , which is made in the normal O.K. way in III. 3 by the same hand.

## III. The Ḳâw Bowl; Outside.

Lines 3–4. Embodying the correction made on p. 25 we may translate: "Am I being injured in your presence? My children are unhappy, and this your son is ill; who then shall pour out water for you?" The failure to pour out water is not necessarily a threat, but the result of conditions which it is in the mother's power to remove.

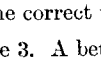
Line 4.  perhaps Old Perfective, "I brought him from another town, he being (thereafter) placed in his town"—a familiar construction. To take it as *śḏm·f*, "I placed," is difficult owing to the absence of an object.

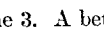
Line 5. Why not  after *ḥbś*? The traces suit this at least as well as the rarer form.

Line 6. The transcription of the sign after  calls for justification.

## IV. The Ḥû Bowl.

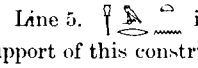
Line 2. *ỉr<nw*. The editors translate this first as "(cry of) woe," and then later in this line *ỉr<nw n* as "woe to...!," an imprecation. It would be strange if it were used in such different senses in two consecutive sentences. To support this translation of *ỉr<nw n* by references to *ỉr<nw n·k* in the Book of the Dead and Coffin Texts is not convincing, because an imprecation "woe to you!" addressed to Rēʿ or any other god is conceivable only as a means of magical compulsion, while the contexts of these examples afford no motive for such an expression of ill-will. And again *ỉr<nw n·f*, said of the thirsty desert-farer in the text translated *Journal*, IV, 244, with note 6, cannot mean "woe to him!" though it might mean "woe is to him." *Ỉr<nw* seems to mean primarily "attention, consideration, solicitude"; it is in this sense that it will have been used in *ỉr<nw n·k* as a kind of salutation, and in *ỉr<nw n·f* as an expression of anxious sympathy. Like similar words in other languages (e.g., *cura*, care, *souci*, *Sorge*) it will easily have taken the secondary meaning, which it often has, of trouble, worry, and even woe. I suggest, then, that *ỉr<nw* is to be taken in the passage before us as something like "attention," *Achtung*.

The early writing  for *nn* (it seems impossible to take it as *nn nj*) is interesting. In line 6 we have the correct writing. In V. 1 is the converse error,  for *nn nj*.

Line 3. A better sense is obtained by taking  as beginning a new sentence. To take  as participle qualifying "my daughter" involves reading into it a meaning "who nevertheless makes" which is somewhat un-Egyptian; one would expect this idea to be expressed by . Further, to refer to the recipient of the letter as "the spirit" in the third person would be very strange. This sentence, far from referring to the daughter's "exemplary piety," is an unblushing statement, important for the study of funerary cults, that offerings to the dead demand a return in the form of ghostly protection of the offerer.

Line 4. . I hope to show elsewhere that *ỉr n·k śḏm* seems to be used for specially urgent injunctions.

[1] However, the theory put forward on p. 12 would, if correct, remove this objection.

Line 5.  is difficult. *N* as dative after *mr* is unknown elsewhere, and the passage[1] cited in support of this construction lacks relevance. Since a transitive force of *mr* is also unknown, we can hardly read *mrt·n·j*, "what I have suffered." Possibly "our (my and my daughter's) suffering."

*M3ʿ* is probably future; the writer means that she will triumph against any dead person who may be causing the trouble. For "I am vindicated" one would expect rather *m3ʿ·n ḫrw·j* or *ḫrw·j m3ʿ*.

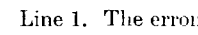
Regarding the general purport of this letter, I do not agree with the editors that while the wrong is attributed to the malign influence of some dead person, there is "an obvious living culprit." Their theory (expressed in more general form on p. 11, and resting only on these documents) of A, a spirit, impelling B to do harm to C, may be correct, but it is not necessary to invoke it here. I suggest the following interpretation: The unnamed person referred to in lines 2, 3, is now dead. The daughter is suffering from some affliction, possibly illness, as in the Cairo Bowl, and the mother *suspects* that this man, who while alive was evidently in close relations with the two women, may be the occult cause. Hence she directs her husband's "attention" to him in connexion with the mischief.  will then be not the grievance but another reason why the unnamed man, if he is causing the trouble, is doing so without real provocation: "he did not (have to) give anything to my daughter." But the writer not being certain that this man is the culprit further urges her husband to make his reckoning with whoever *is* doing the harm, for she is sure of triumph against *whatever* dead man or woman it may be.

The following translation embodies the above notes:

*A sister says to her brother:*

*Great attention! attention to him whom you .....ed will be profitable, on account of this which is being done (against) my daughter very wrongfully. I did him no harm; I did not consume his property; he did not (have to) give anything to my daughter. One makes funerary offerings to a spirit for the sake of protection of the survivor! Make your reckoning (quickly) with whoever is causing our(?) suffering, for I shall triumph against any dead man or woman who is acting thus against my daughter.*

## V. The Berlin Bowl.

Line 1. The erroneous  may be explained thus: The very inept scribe, copying from a draft, had got as far as the  when by distraction he jumped from it to the  a few signs lower down and copied what followed the latter, namely ; he then perceived his error and went back to  without however troubling to erase or cancel the superfluous . A better illustration of *m rḫ·t* than those given is "I have not told lies *m rḫ·j*, to my knowledge," Brugsch, *Thesaurus*, 1225.

 cannot here be "together with," a meaning which it has only of persons accompanying one another. It must here mean "held by," cf. *pr...m wn m-ʿ śmr*, "a house...which had been held by a Companion," *Sinuhe*, B. 295–6. As de Buck, who read this text with me, saw, *m-ʿ ḫrdw·t* must be predicate to *pr*: "the house is held by your children." *Wgg mȝ* perhaps exclamatory: "a fresh misery!"

Drawing a picture of the recipient on the bottom of the bowl had doubtless the same purport as tying the Leyden Letter to an image of the recipient; both were symbolic ways of addressing the communication.

## VI. The Cairo Bowl.

Lines 2, 7. The horizontal stroke before  (line 2) and  (line 7[2]) may be in both cases  for . In unpublished letters of the early M.K.  followed by a noun is frequent, and in line 7 we seem to need *in* introducing the question.

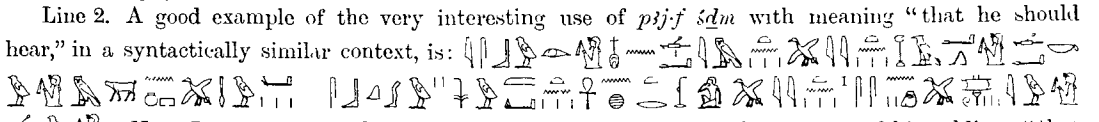
Line 5. The tick on the left of  is not part of the sign, and may be .

[1] The dative with suffix after *nbt* would be so abnormal that I suggest that  here may be a summary writing of : "I know everything whereby I may become blessed."

[2] Parallels for the curious use of *wn* here are *ỉr wn* followed by *śḏm·f* in V., and *nn wn* followed by *śḏm·f*, discussed in my *Studies in Egyptian Syntax*, 124.

## VII, VIII. The Leyden Letter.

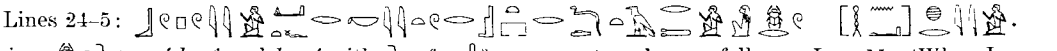
Line 1. *šḫ ỉḫr* is treated as a title.

Line 2. A good example of the very interesting use of *pȝj·f šḏm* with meaning "that he should hear," in a syntactically similar context, is:  "Have I never done good to any one of you," asks the deserted Ramesses of his soldiers, "that you should leave me alone in the middle of the battle? How very dear to you is life, that you should breathe the air while I am alone!" *Poem of Pentaurēre*, ed. Selîm Hassan, Pls. 124–5[2].

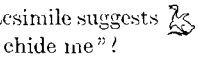
Line 7. I see no need to make any emendation in this line. The writer says: "I am laying a plaint against you ((in the presence)) with words of my mouth in the presence of the Divine Ennead of the West, and one shall judge between you and this writing." I take "this writing," previously referred to (line 5) as "this accusation," to be not merely a personal letter to the dead wife, but also, as the editors themselves suggest (p. 12), a juristic pleading of the wronged widower before the Ennead; being alive he is unable to plead at the Court in person, and having apparently no dead friend or relative to plead there for him he has no resource but to plead in writing. That no specific charge is brought will be due either to muddle-headedness or to a feeling that the Ennead will know all about it without being told by him. The following words seem very obscure: *pȝ wnn=pȝ-wn*, "because"?

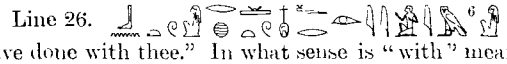
Lines 11, 25. The close parallelism of these two passages, the former referring to the writer's youth, the latter to his mature age, suggests the restoration of  after  in line 25, and the traces of the missing word, as given in the margin, suit this pretty well. We then have:

Line 11: 

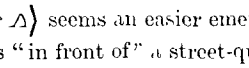
Lines 24–5: 

Taking  as *šḏm·f*, and *ḫpr·š* with  for [3], we may translate as follows: Line 11: (When I was a boy...) I did not desert you but said "She shall grow up with me"—so I said. Lines 24–5: (When I was placed in the position in which I now am...and they brought you your ointments and provisions and clothes) I did not put them elsewhere[4], but said "The woman has grown up[5] [with me]"—so I said.

Line 21. Möller's facsimile suggests  and almost excludes the reading ; "I did not let a chider chide me"?

Line 26.  is translated "thou dost not know the good that I have done with thee." In what sense is "with" meant? The use of *m* is very curious. Have we here an idiom *ỉrỉ m* "to deal with" a person: "you do not know how well I treated you"?

Line 27. *ḥm m* perhaps "to understand."

Line 28.  seems an easier emendation.

Line 33. *M bȝḥ* as "in front of" a street-quarter would be very strange. I propose to read *m bȝḥ(·t)* as in line 17, and to supply ⟨*m*⟩ as in lines 18, 21: "I wept sorely with my people before you (*i.e.*, before your corpse or mummy) in my quarter."

Line 36.  is left untranslated; it is evidently "until now" like .

## The Oxford Bowl.

Line 1. It is difficult to see in  *Tỉj-ḥȝ* the ordinary *šḏm·ỉn·f* form, which is always continuative. The comparison with *Shipwrecked Sailor*, 1, is not cogent, for it is certain, if considerations of style and form are to count for anything, that the beginning of that story is missing. An informal beginning of some

[1] Var. .

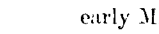
[2] The leaving alone and the breathing the air being (especially the second) clearly in the present tense, it is not possible to see in these passages examples of *pȝj* "to have" auxiliary, which occurs in this text, *op. cit.*, Pl. 44, B.

[3] Examples of this, Sethe, *Verbum*, II, 168.

[4] Meaning apparently that he allowed his wife of long standing to use all these commodities freely, and did not store them.

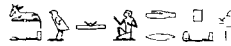
[5] *Ḫpr* masculine Old Perfective because *rmt* is usually masculine?

[6] Möller's facsimile suggests a senseless  altered into  to do duty for .

early M.K. letters is  NN. = "said by NN.," and it may be that we have here a survival of that obscure phrase, with loss of *r* as in [1]. Otherwise we must surely take *ḏd* here as infinitive as in .

The copy, if correct, makes it necessary to read , "my father." The next word, according to the improved copy, is possibly , the  as in *ḥjmt·f* at the end of the line. The sign after this cannot be read . After  are two signs of which the second looks like  badly made as in  at the end of line 2. The word ending in  and an obscure determinative may easily be a verb in the Old Perfective referring to Meniupu, and "his wife" at the end of the line may be Meniupu's wife.

Lines 1, 2. The three finite verbs *śʿnḫ*, *mwt* and *ḫpś* (first occurrence), which are all in *śḏm·f*, are assumed by the editors to be in the past tense. But in a text of the early New Kingdom, apparently correctly written, there is the strongest probability that *śḏm·n·f* would be used in past narrative, and that *śḏm·f* would be used to express the present or future.

Line 3. The context renders "inherit from him" as a translation of *iwʿ św* almost impossible; for if Meniupu has to live and die at other people's expense there can hardly be anything to inherit from him. I propose to see in *iwʿ* here the meaning of carrying out the duties of an heir rather than of inheriting[2]. It is incumbent on a man's heir to ensure the funerary offerings and upkeep of the tomb; *cf.* especially , "an 'heir' who shall make offerings and tend my tomb," *Lebensmüde*, 52–3, also: "I buried my father...I embalmed him...I inscribed his tomb, I set up his statues, as should be done by a good heir (*mj ỉrrt iwʿ iḫr*), Petrie, *Athribis*, Pl. vi, lines 10–11.

The following translation embodies these observations:

*Said by Tetiʿo, son of Neni:*

*Meniupu has come as a fugitive. My father and my mother will support him, he (Meniupu) being....., in respect of (?) his wife Teti. When he dies my mother will bury him, (for) her husband Neni has said to her: "bury him and act as an heir towards him."*

This rendering seems to give as good a sense as that of the editors, and to have the advantage of conforming somewhat better with Middle Egyptian grammar. The document is perhaps a letter, though if so the omission of any indication of the recipient is very strange; it has rather the appearance of a formal statement.

One may imagine some such setting of circumstance as follows: Meniupu, a relative of Tetiʿo's mother, has arrived as a fugitive from justice, or an escaped prisoner, or a deserter from the war with the Hyksos. For some reason— old age, sickness, wounds—he is unable to support himself; this will be done by Tetiʿo's parents. When he dies, Tetiʿo's mother will, by the express instructions or permission of her husband, bury him and maintain his offerings and tomb.

If this is a communication to the dead, we may imagine that it was placed by Tetiʿo at the tomb of Meniupu's deceased parents; an assurance that their son, in his helpless situation, would be well cared for and eventually buried and tended after his death could hardly fail to ensure their active good will towards the benefactors.

### The Moscow Bowl.

Line 1. That this text is not addressed to a relative is perhaps not an argument against its being a Letter to the Dead. Khnememwaskhet may well have been Tita's father—the best person with whom to communicate in the circumstances.

Line 4. An argument against this being a Letter to the Dead which the editors do not take into account is the request "let my lord send to Tay to say that if she comes to me I shall hit her." If Tay is dead, it seems both futile and imprudent to try to hit a ghost; if she is alive, why send her the message *via* the Underworld?

Line 5. *Ḥn nfr.* Perhaps rather "benefactions"; cf. *ḫn(w) nfr nj pȝ Rʿ*, "a benefit of Rēʿ," cited in Spiegelberg, *Correspondances*, 92.

A warning that inscribed bowls and dishes were not always votive in character seems to be afforded by the dish published in Revillout, *Corpus Papyrorum Aegypti*, Pl. viii; it is inscribed with an agreement in demotic by which a woman sells herself into slavery.

[1] The preposition *r* disappears before *ḏ* already in Dyn. VI; Firth-Gunn, *Teti Pyramid Cemeteries*, 109, note 2.

[2] Compare the Old Egyptian use of the verb *wʿb* in the two distinct senses (*a*) "to exercise priestly functions," (*b*) "to enjoy priestly privileges."

THE LIVERPOOL STELA.

Line 2. Reference might have been made here to *Zeitschr. f. äg. Spr.*, XXXVIII, 109 foll., to prove that  is to be read , and to illustrate *n kȝ nj smjt tn*, which may be more lucidly rendered "for the soul(s) of this family[1] burial-place." If the meaning of the following words were "according as they may say" one would expect *mj ḏḏ·śn*, as often on M.K. stelae; I prefer to translate merely "they say" following an unconditional prayer for their benefit.

Line 6.  may be "my father," *i.e.*, , to whom Ipi is making offerings below. Can the signs  stand for *śist*, "making light"?

Line 7. *Mtr*, "witness," is much to be preferred to *bȝḥ* because the latter word should have , not , at this period (Gardiner, *Grammar*, 448). For "to appeal against some one as a witness," cf. *m ḫr r·j m mtr*, "do not appeal against me as a witness," *Book of the Dead*, 30 A, B.

In the registers below, twelve persons are commemorated, but only a selection of them is represented. This has not been clearly understood. Over the offerings we have: "The Butler of the Bread-house, the justified Innefret[2]. His mother, the justified 'A'itefi[3]." Over Ipi is "The Butler of the Meat-house, Ipi." Behind him is written: "The Butler of the Beer-house, Iuku, born of his mother[4]." , the name of the seated man before the offerings, perhaps for , from a confusion quite possible in Middle Hieratic[5]. *Ḥwt-ḥr*, the name of this man's mother, is a common name[6] and requires no emendation. In the lower register, for the woman's name on the left I suggest ; *cf.*  (man's name), Cairo Stela 20427, *f*. The next name is not a woman's but a man's. Is  a mistake for the  which we have everywhere else here for the mother's name?  might perhaps be mistaken for the M.K. ligature of .

Misprints noticed:  (*read* ), p. 15;  (*read* ), p. 22; not in Turin (*read* now in Turin), p. 25.

BATTISCOMBE GUNN.

*Recueil des colophons des manuscrits chrétiens d'Égypte.* Par A. VAN LANTSCHOOT. T. 1 in 2 parts. Louvain, 1929. Pp. xviii+378.

With this book, which obtained for him the doctor's degree at Louvain, the author sets out upon a considerable programme. He hopes to edit, in a series of volumes, all available colophons to be gathered from Christian MSS. written in Egypt. Those from Saʿidic MSS. being the oldest, he naturally begins with them; but even they will need another volume to coordinate and summarize results. Then will follow a volume (or more) of Bohairic, another presumably of Syriac—from the now extinct community in Nitria—and as much again of Arabic. If all are edited with as much care and commented with as much learning as those in the present volume, historians, theologians and linguists will one day be in possession of a very interesting and valuable body of texts, in great part unpublished and, so far, all but entirely uncommented. This volume is without translations, but where oft-recurring formulae play so large a part, translation may well be postponed. There are various exhaustive indexes at the end of the book.

[1] "Family" in the widest sense; see *Zeitschr. f. äg. Spr.*, XXXVIII, 110.

[2] *Cf.* the name , of similar meaning.

[3] Reading , "my father is great"; *cf.* the common epicene name  and variants, Lange-Schafer, *Grab- u. Denksteine* (Cairo Catalogue), III, 96.

[4] Not "born of Mutef," as the editors translate. Frequently on M.K. stelae it was for some reason deemed not desirable to give the name of a person's mother; in such cases the form of filiation was preserved by writing  after a man's name,  after a woman's. If the reference to the "names" ,  in Lieblein, *Dict. des noms*, be followed up, it will be seen (*a*) that they occur only after , , (*b*) that with one exception, perhaps a modern copyist's error (Petrograd Stela 66),  follows only a man's name + , and  follows only a woman's name + . Evidently Lange and Schäfer have seen that these are not names, since they do not include them in the Index of Names, *op. cit.*, III.

[5] *Śn-pw* (man) and *Śwjt* (woman) occur together, Cairo Stela 20598, *e*.

[6] Lange-Schäfer, *op. cit.*, III, 133.

The arrangement of these 126 colophons is geographical, from north to south, beginning with the MSS. from the Fayyûm (over half the total), followed by those from Akhmîm (the White Monastery) and those from the Upper Thebaid, conspicuously those from Edfu and Esnah edited by Sir Ernest Budge. On slightly more than half of them precise dates are still to be read; many more can be dated approximately; together they range from about the sixth to the fourteenth century. The formulae of which they consist vary considerably, but show for the most part constant elements: the names of the donor of the MS., of the monastery or (less often) church to which it had been vowed, and of the scribe, with prayers for the welfare, in this life and the next, of all concerned. The books to which the colophons belonged were of course all ecclesiastical: biblical, liturgical, hagiographical, and were mostly dedicated in fulfilment of a pious vow. The language of the scribes, though nominally Saʿidic, is, in the case of the MSS. from the Fayyûm, and indeed from Akhmîm as well, often of very doubtful purity; and this is not surprising seeing that many of the writers are pupils of the writing-school at Toutôn (Tebtynis), in the south of the Fayyûm, who sold their handiwork to patrons far to the south of their native place. Nos. 7 (2), 31, 42, 66 are among the most strongly tainted specimens. The proper names left in blank (*c.* below) show that these scribes did not always work to a previous order.

As examples of the less formal pieces we may offer one or two in translation. Here is one (no. 74) which terminated a copy of the Salomonic books and consists of two colophons, that of the original and that of a subsequent donor: I. "Think kindly of me, each one that shall read in this book. Lo, here is (my) obeisance (*μετάνοια, cf.* no. 113 vo.). Forgive me my errors wherein I have erred, for I am (but) learning. Lord Jesus Christ our Saviour, may He bless our pious brother and deacon (*blank*), son of the departed (*blank*), and his children, with every spiritual blessing; for he provided for this three-part book: the Proverbs of Solomon and the Preacher and the Book of Job, that he might read (*μελετᾶν*) therein and his children, to the profit and salvation of their souls. The Lord Jesus Christ keep you and bring you to a good end and perfect, and make you to be worthy of His glad voice, when He saith, Come etc. (Mt. xxv, 34), with all Christian brethren. Amen, so be it." II. "In the name of our Lord Jesus Christ, God and Son of God, giver of the true wage unto every one that loveth Him. May He accept this gift at the hands of our brother Theodore, son of Mina, and our pious sister and (his?) wife (?) Tdoux, daughter of Pirothe (Philotheus), men of Psounhai. For they it was did provide for these parts of the book (*as above*), that the saints might entreat God for them, that God should accept of them their gift upon the altar of our father the prophet, Apa Shenoute, of the Mount of Atripe. And may God bless them (?) with all spiritual and heavenly blessing and their children and all that they have, and may they be blessed in their going out and their coming in, and may He write their names in the Book of Life, even as they have done by their good intention (*προαίρεσις*), together with all the saints. And (he that gave) occasion for the installing (*συνιστάναι*) of this book in the monastery was our beneficent (*lit.* providing) brother Basil, the monk and steward of the great congregation, the true Jerusalem, whereof he said (*leg.*? it was said), 'Thou art the true Jerusalem.' God make him worthy to enter into that city with a countenance devoid of shame, together with all such as have had a part in this good (work), which is this (book). Amen."

No. 102 is likewise from Shenoute's monastery. It concluded a copy of the "Great Life" of Pachomius—a designation the precise meaning of which we hope before long to learn from Professor Lefort. "Have mind of me, pray in kindness for me, my fathers the clerics, every one that shall read in this book, me this man, sinful above all the world, Susinnius, unworthy of the name of deacon. And do ye say, The Lord have mercy upon this wretch, that through your holy prayers and the moving of your pure lips, the Lord may forgive me the great sea of my sins and (grant) me amendment of life henceforth, and may He have pity upon me in the day of need (*ἀνάγκη*), that day full of grief and groaning. So be it, Amen." Then, after citing Pss. lxiv, 4 and cxi, 1: "This good deed came about through the *δούξ* (or as name: Ptoukes, *cf.* Tdoux in the previous colophon), that bought this Life of our father Apa Pachômo, at the price of his own labours and gave it to the monastery of Apa Shenoute, for the salvation of his soul. Lord Jesus Christ, the Son of God the king, bless and keep the life of our pious brother Abû Naser, son of (*blank*), the man of Tampeti in the nome of Pemje (Oxyrhynchus). For he it was bought this book with what he possessed, of the Persians, at the time when God brought them upon the Egyptians. They robbed their raiment and all that they had and seized their wives and their children and did lord it over all the land, from Rakote (Alexandria) even unto the land of Pilak (Philae). And the day whereon they came to Egypt was the second of Mechir, in the 883rd year of Diocletian (= A.D. 1166). Great violence wrought they upon the land and slew a multitude of Christians and exhausted (*lit.* gleaned) the whole land of Egypt,

because of the abundance of the iniquities that the men of Egypt had wrought. And thereafter did God remember His Christian people and His bride the church, and He scattered them (*sc.* Persians) and brought them forth from the land of Egypt, in the eighth month (of their stay), which is the month Thowt. For this cause did the man whose name we have told and that bought this book of our father Apa Pachôma (*sic*) send it to his monastery, that our father Apa P. should entreat the king Christ on his behalf, that He would bless him in this world and his children and all that he hath and that, when he shall go forth from this world, He would destroy the record (*χειρογράφον*) of his sins and would grant unto him things heavenly, in exchange for earthly, and would repay him his vow an hundredfold in the heavenly Jerusalem, city of the saints and righteous, and would write his name in the book of life, that he might rejoice with the saints. Amen. This day is the 15th of Thowt, era of the Martyrs 889 and of the Saracens 560. This humblest of sinners it is, the deacon Pegôsh, of this same nome, that wrote. Remember him." The Persian tyranny here described is—as Mr. Guest had already shown—that of the Ghuzz or Kurds, under Shîrkûh. It is indeed rarely that a Coptic colophon records an historical event as definitely as this.

There is but little to criticize in the details of Fr. van Lantschoot's admirable work. One or two of the recurrent phrases remain difficult and his interpretation will be interesting, *e.g.* the opening words in nos. 2 and 40 ϩⲉⲧϥ ϩⲉ(ϩⲙ)ⲡⲣⲁⲩⲉ etc., presumably comparable with the ⲥⲓ ⲧⲟϩⲥ ⲙⲙⲟϥ of no. 100 and with ⲱⲡϩ ⲥⲉⲓ ⲙⲙⲟϥ of nos. 53, 80. In no. 96, line 25 "the 10 books" of Shenoute (ⲛⲓⲙⲛⲧ ⲛⲥⲱⲱⲙⲉ) are referred to; it would be interesting to know what these were. The rare word ⲙϫⲁⲓⲧ (no. 54), as to which the editor speculates, appears to mean "dyer." In no. 105, line 13 I read ϫⲱⲣⲉ, not ⲕⲱⲣⲉ, and would identify the saint with ϫⲱⲱⲣⲉ of this same text. Finally the mysterious Fayyûmic list of pairs appended to no. 11 may be translated as follows: "I am small, I am great; I am sweet, I am bitter; I am poor, I am rich (ⲧⲓⲙⲁⲗⲁ=ⲧⲓⲉ ⲉⲗⲉⲙⲉⲁ); I am putrid, I am perfumed (ⲥⲧⲏ-); I slay (ⲙⲟⲩⲧ), I make alive (ⲧ ⲛϩⲁ); I am higher than heaven, I am flatter (?) than earth (*i.e.* ϯⲟⲩⲁⲩⲉ ⲉⲃⲟⲗ ⲉϩⲟⲩⲁ). None is greater than I save God alone. My name is ⲫⲕⲁ; let a wise man interpret it." I at any rate am not wise enough to do so. Let us hope that Fr. van Lantschoot will succeed.

W. E. Crum.

*Die Sprache des Pentateuch in ihren Beziehungen zum Aegyptischen.* Erstes Buch. By A. S. Yahuda. Berlin und Leipzig, 1929.

Dr. Yahuda's work is of the greatest importance from the point of view of Old Testament study, for if he were to succeed in proving his thesis many of the results of the Higher Criticism would at once fall to the ground. What he undertakes to demonstrate is this. He sets out from the observation that the Babylonian influence evident in the pages of Ezekiel, Ezra, Nehemiah and other books admittedly exilic in date is of a much more marked type than that visible in the legends of Genesis. Consequently these last must belong to a different date from the first, and the only period open for consideration is manifestly that of the patriarchs. Now these early legends also show, according to Dr. Yahuda, certain signs of Egyptian influence. How is this to be explained? To this question he gives the following answer. The forefathers of the Hebrews arrived in Canaan speaking an Aramaic dialect strongly tinged with Akkadian elements. They then adopted the Canaanite dialect, which, in their mouths, under the influence of their Aramaic-Akkadian idiom, began to develop into the literary language which we know as Hebrew. This language they took with them into Egypt, where, under the influence of Egyptian, it underwent those enrichments and transformations which enabled it to become the language of the Pentateuch.

The evidence on which he relies to prove this is purely philological. It consists in showing in those portions of the Pentateuch which must, on this hypothesis, have been taking shape during the sojourn in Egypt the presence of Egyptian words, phrases, turns of speech and attitudes of mind. These are for the most part, though by no means always, to be sought for among words and passages which have given trouble to the commentators owing to their unusual or foreign appearance, and have generally been regarded as corrupt. They are treated under several headings, such as court formulae and expressions drawn from Egyptian ceremonial and official speech, Egyptian titles and dignities, common expressions and turns of speech taken over from Egyptian, and so on. Under the first of these headings we at once find a statement which gives us pause. Speaking of the various dialogues between Pharaoh and Joseph, Dr. Yahuda says (p. 5): "All the expressions and turns of speech are permeated with the spirit of the Egyptian language, and the whole nature of the intercourse between king and subject bears a thoroughly Egyptian stamp." Now these are strong words, so strong that one wonders whether they could ever be justified except in the mouth of an Egyptian scholar of the very first order. Dr. Yahuda, it must be remembered,

is a Hebrew scholar, and though he has clearly been at pains to equip himself with some knowledge of Egyptian in order to accomplish his present task, he would, I feel sure, be the first to admit that he does not possess that intimate knowledge of the Egyptian language which can only come from years of devotion to that tongue and to that tongue alone. Consequently, when he writes that certain parts of the Pentateuch are "permeated with the spirit of the Egyptian language" (vom Geiste der ägyptischen Sprache durchdrungen) we cannot help wondering whether he is quite in a position to make such a statement. On the other hand, nothing short of this is of any use for his purpose, since, as he himself clearly explains, he must show not only that Egyptian linguistic influence is present but also that, in those parts of the narrative which deal with the sojourn and exodus, it is present in such a form as can be explained only by close contact with the Egyptian people in Egypt itself.

Dr. Yahuda's method thus puts a very severe strain on the philological experience and acumen of him who employs it. We are inclined to think it is a method which could only be successfully employed by two scholars, one of Hebrew and one of Egyptian, working in close collaboration. Dr. Yahuda shows great ingenuity in choosing his examples, yet in almost every case his lack of intimate knowledge of Egyptian betrays him; the Egyptian word may mean what he says it means, but it does not mean it in the precise sense which is necessary for his purpose. Let us take some examples, and, in order to be as fair as possible, let them be the first which Dr. Yahuda gives, taken in the order in which they occur.

1. In Gen. xli, 40 is a puzzling passage which is rendered in the A.V. "according unto thy word shall all my people be ruled." For "be ruled" a marginal note has "be armed" or "kiss." Y. states that the difficult word (נשק) is elsewhere known only in the meaning of "to kiss"; he translates it here "to eat," and justifies this by giving the phrase an Egyptian origin. The Egyptians, he says, sometimes spoke of "kissing" offerings or foods instead of "eating." In the two examples which he quotes the verb *śn* could equally well, and probably does, have its common meaning of "smell," and even if *śn* did occasionally, with a direct object, mean "eat"—of which we have no proof—it would still be a very long way from here to the absolute use of *śn* in the sense of "to eat" (almost "to live") which Y. so lightly assumes.

2. In Gen. xliii, 31 Joseph gives orders to "Set on bread" for his brothers, a command so simple and natural that one would hardly expect to find it adduced as a proof of Egyptian influence. Y., however, tells us that the use of "bread" alone in the sense of "a meal" is characteristic of Egyptian. A Semite, he says, would have spoken of "bread and water" or "bread and salt": the Egyptians used "bread" alone not only because bread "was and is the chief nourishment in Egypt, as elsewhere in the east," but also because they excelled all peoples in the production of bread of a large variety of kinds. Now it is true that the Egyptian did (as do all bread-eating peoples) speak proverbially of "bread" in the sense of "food"; the Egyptian nobles boasted on their tombstones that they had "given bread to the hungry and clothes to the naked": after all water could be had from the nearest ditch. But I do not see by what logical process we can move from this to the belief that when Joseph said "Set on bread," instead of "bread and water" or "food," he was using an idiom essentially Egyptian.

3. In Gen. xli, 43, "he made him ruler over all the land of Egypt," the verbal form is infinitive. Y. tells us that it is rightly to be translated as a command (like the similar infinitives in xliii, 16). He sees here "a further example of the extraordinary exactness with which our text has been handed down," for, he explains, in the official Egyptian style the infinitive is used to convey royal commands. Now this is simply not true. In an inscription like Merenptah's Israel stela, which Y. himself quotes, the verbal forms in the opening words "account (infin. of a verb) of his campaigns, making known (infin.) to all lands, beholding (infin.) the glory of the warlike deeds of the king" are not commands; they are infinitives used as nouns in appositional description of the stela and its contents, as if the king had said ("This stela is) an account," etc.

4. Gen. xli, 46 tells us that "Joseph was thirty years old when he stood before Pharaoh. The verb for "stand" is the usual עמד. Now Y. attempts to make a point of the facts that this passage refers to a ceremonial appearance as vizier before Pharaoh, and that in Egyptian, too, the verb for to appear ceremonially before Pharaoh is the common verb for "to stand," namely *rḫ*. Supposing that this were the case, the use of the verb "to stand" in the sense of "to appear" before the king is so obvious and natural that it is hardly necessary to suppose that the Hebrew writer borrowed it from Egyptian. What is more, the passages given by Y. in support of this use in Egyptian (which I do not necessarily dispute) are wholly unconvincing. In the Una passage it is not at all certain that *rdìt rḫ śnw* refers to the introduction of

nobles into the king's presence, and in the phrase (*Rec. trav.*, XVII, 147 = Pap. Leyden I, 350, vs. 3, 17) *sḏmw n pȝ ḥ‘w*, *ḥ‘w* is, as the article *pȝ* shows, a singular, and is therefore ill-compared with "them that stood by him" הַנִּצָּבִים עָלָיו of Gen. xlv, 1. Why, in any case, should this last phrase not be used quite literally without any technical implication at all?

5. Ex. ix, 16 has a passage which the A.V. renders "for this cause have I raised thee up for to show in thee my power," which seems to make admirable sense in the context. Y. would translate "for this cause have I let thee continue to live (habe ich dich stehen lassen)" because the Hebrew word used, עָמַד, is parallel to the Egyptian *ḥ‘* "to stand," a derivative of which (incidentally, is it certain that it is a derivative?), *ḥ‘w*, means "length of time," "length of life." Now when by supposing Egyptian influence light can be thrown on an obscure or meaningless passage in the Hebrew there is something to be said for this method. Here, however, not only is the Egyptian analogy forced, but the meaning of the O.T. passage is altered not for the better but for the worse. God says to Moses, "For this cause have I raised thee up, for to show in thee my power." This makes admirable sense. It is on the contrary very hard to see why God should here say, "For this cause have I let thee go on living, for to show in thee my power."

6. In this same verse occurs the word סַפֵּר, a derivative of סָפַר "to count," to which the A.V. gives its usual meaning "declare" (my name). Y. would alter the meaning to "praise" or "glorify," and goes on to explain that we have here a remarkable parallel with Egyptian. In a corrupt passage of Pap. Sallier III (3, 1) occurs the verb *sḫp*, admittedly a causative of *ḫp* "to count." The king says to Amūn, "Evil shall befall the man who opposes thy design, but it shall be well with the man who .....s thee (*sḫp·k*), O Amūn." Now it is obvious that the gap might be filled with a hundred different verbs. Y., however, chooses that which happens to suit his argument, namely "glorify," and then says, in the manner of a conjurer producing a rabbit out of a hat, Behold another instance of Egyptian expressions in the Pentateuch! If this is not Petitio Principii it is very near it.

7. In Gen. xl, 1, xlii, 30 and 33, and xliv, 8 we find a curious plural אֲדֹנִי "Lords" (construct form) used of Pharaoh or of his vizier as the case may be, where of course we expect the singular. On this Y. remarks two things. Firstly, that since we have only construct forms of the word it may be a dual just as well as a plural. Secondly, that in old times Pharaoh was termed (bezeichnet) not only "Lord," *nb*, in the singular, but also "Double Lord" or "Two Lords, *nbwj*, in the dual. The error which underlies this statement will escape no Egyptologist. It is true that the Pharaoh's titulary was double, just as his kingdom was theoretically double, but it is not true that he could be spoken either of or to as "Double Lord" or "Two Lords." Consequently if there is an Egyptian allusion here it is a very inaccurate one, and one which hardly supports Y.'s thesis that "the whole nature of the intercourse between king and subjects shows a thoroughly Egyptian stamp."

Space forbids that I should continue this detailed analysis. I believe, however, that I do Y. no injustice in saying that almost every one of his points lies open to criticism of the type here employed, and that in almost every case the weakness arises from his insufficient knowledge of the finer points of Egyptian. Unfortunately he has not given us in this volume any definite statement as to just when and how the Pentateuch came to be committed to writing. Until he tells us this it will be very hard to judge his theory as a whole, or to decide to what extent the lack of cogency of so many of his arguments will affect the validity of his general conclusions.

For most of us the archaeological evidence seems to fit the conclusions of the Higher Criticism remarkably well. The sojourn must somehow preserve a reminiscence of the Hyksos invasion, and for my own part I come more and more to believe that Dr. Hall is right in holding that the Hebrews must have gone out with the Hyksos when they were expelled from Egypt shortly after 1600 B.C. Nor do I see why this need invalidate the identification of the Hebrews with the Khabiru of the Tell el-Amarna letters, even though it leaves unexplained their whereabouts between 1600 and 1400 B.C. On the other hand the geographical and personal names of the sojourn and exodus are definitely late. They point to the ninth century at the earliest for the writing down of the story in its present form. The knowledge of Egyptian habits and customs shown in this narrative is very superficial and unconvincing, and, if part of the original tradition, merely shows how appallingly inaccurate tradition can be, or, if due to later editors, as seems more probable, how incompletely these were informed as to their Egyptian neighbours.

Exactly how Dr. Yahuda proposes to attack this view will not appear until he has stated more definitely when and under what conditions the accounts of the sojourn and exodus were written down. He will certainly have to find some explanation of the fact that while the archaeological detail is both late and inaccurate the marks of Egyptian linguistic influence have been, according to his theory, perfectly preserved in the minutest detail. Further than this, in order to convince us that these marks are so numerous and so unmistakable, he will have to produce linguistic arguments which are much more resistant to criticism than the greater part of those in the present volume. For my part, while I do not deny the possibility of the direct survival of an occasional Egyptian word or phrase in the oral tradition, yet I find in the story of the sojourn and exodus no Egyptianisms (*sit venia verbo*) which could not be adequately explained as due to the same authors who in the ninth century and later committed the story to writing and gave to it its anachronistic geography and its pseudo-archaeological colouring.

T. Eric Peet.

*Les Temples de Karnak*. Fragment du dernier ouvrage de George Legrain. Brussels, Fondation Égyptologique Reine Élisabeth, 1929. Pp. viii + 270.

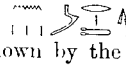
One of the greatest services rendered to Egyptology was the work of Georges Legrain, Director of Works for the Service des Antiquités de l'Égypte. Twenty-two years of his life, from 1895 to 1917, were spent in the patient exploration and restoration of the mightiest of Egypt's ruins, the temples of Karnak, and his death occurred when he was preparing for the final publication of his titanic labours. This final work was to have been preceded, so Professor Capart tells us in his Preface, by a general account of the Karnak temples and their history, but after his sudden death certain of his manuscripts were unfortunately lost, and the present book represents the only surviving fragment, carrying us no further than the third pylon of the great temple of Amon. But this book, fragment though it is, makes us mourn all the more its unhappy incompleteness, for it is a truly magnificent account of the greatest of all Egyptian buildings, the shrine of the Lord of Karnak.

Beginning with the quay and the avenue of sphinxes which leads up to the west pylon, M. Legrain describes first the appearance presented by these ruins in the early days of archaeology, and the various interpretations put upon them by students of that time, supplementing his account with highly interesting photographs which illustrate the gradual emergence of these monuments from the soil of centuries. This is the method followed by the author throughout, up to the great Hypostyle Hall, with which he ends, in every case leading up to the results of present-day investigation.

He does not, however, stop here, but enlarges the value of his descriptions for the general reader by a good account of the splendid scenes witnessed by the various portions of the temple in ancient times, as for instance the arrival at the quay of Amūn's sacred boat "User-ḥat-Amūn," and the impressive receptions given to the Divine Votaress. These reconstructions of historical and religious events are strengthened by clear descriptions of sculptured scenes, and translations of the most important accompanying inscriptions in all parts of the building.

Probably the most valuable part of the book is the account of constructional methods employed anciently in erecting the temple, *e.g.* M. Legrain's remarks on the masses of brickwork built against the Great Pylon (35 ff.), useful analogies from methods utilized by the Service in restoration work (168 and many photographs), and reports on the foundations on which columns were set (165–6 and Figs. 99–100).

Amid the undoubted general excellence of this book, however, there are several points which call for comment. On page 16, in speaking of the two small obelisks flanking the quay, to which great barques were quite possibly tethered, M. Legrain suggests that the real prototypes of obelisks were wooden poles to which divine barques were fastened in early times. This idea seems to us very far-fetched, and indeed impossible when we recall the tradition of the Sun-god and the Benben stone, unless of course the tall obelisks of the later period were sundered in origin from the early squat forms found in the sun-temples of Fifth Dynasty kings.

The old transliteration of the Heretic's name as "Khouniatonou" (165) is also rather surprising, and most of all the concealment of the name of Osorkon II's son  under the form "Nimrod" (57)! Dr. Hall informs me that the actual vocalization is shown by the Assyrian reproduction of the name of the prince of Hermopolis in Ashurbanipal's record as *Lamintu* to have been *Namilt*, and not *Namlot* as often given.

But these are small errors in an otherwise excellent book.

Alan W. Shorter.

*Ein namenloser Frauensarg des Mittleren Reichs*, by Professor GUNTHER ROEDER. Abhandlungen und Vorträge herausgegeben von der Bremer Wissenschaftlichen Gesellschaft; Jahrgang 3, Heft 4, Juni 1929.

This paper is a long and elaborate study of a wooden box-coffin in the Museum of Bremen, which the author assigns to the beginning of the Middle Kingdom. Certain considerations fix its provenance as Asyût without a doubt, and Dr. Roeder finds many interesting similarities between it and the coffins of Ankhef and Nofru in the British Museum, and the series published in Chassinat-Palanque, *Fouilles d'Assiout*.

After a full description of the carpentry and painting of the coffin, Dr. Roeder draws conclusions from the discolorations of the wood as to the position in which the body was originally laid within the coffin, and then proceeds to translate and comment on the religious texts. These latter are not of very great importance, perhaps the most interesting being the mention (209 and 217) of "the Ernutet of her house," apparently referring to a household figure of the goddess of corn.

Next follows a detailed account of the deities depicted and mentioned on the coffin, and the positions which they assume with regard to the dead body which it contains (see Pl. 5), and a description of the hieroglyphs which are well represented by specimens on Pls. 6 ff. Finally, summing up the evidence drawn from his long study, Dr. Roeder suggests (240 ff.) that the coffin was designed by the artist of an Asyût workshop who had in his mind some great lady well known in the district, but that in all probability it was never bought by its intended owner, but was sold to some member of the company of *nouveaux riches* who abounded in the disturbed period immediately preceding the rise of the Middle Kingdom.

Dr. Roeder has provided a highly useful study based on the keenest observation, which will be welcomed by those who are seeking a clearer view of Middle Kingdom coffins and their texts.

ALAN W. SHORTER.

*Topographical Bibliography of Ancient Egyptian Hieroglyphic Texts, Reliefs, and Paintings.* II. *Theban Temples.* By BERTHA PORTER and ROSALIND L. B. MOSS, B.Sc., Oxon. Clarendon Press, 1929. Pp. xviii + 203.

This, the second volume of the great bibliography of the texts and pictorial records of ancient Egypt initiated by, and carried out under the supervision of Professor Griffith, comprises the temples on both sides of the river at Thebes, systematically arranged, and provided with general and sectional plans, each record, great or small, found in books or manuscripts being succinctly described as to subject, and its situation in the building clearly defined in words and marked also on a plan. In sensible arrangement and clarity of statement the book, on the face of it, gives an impression of fully corresponding to its high ambitions, and under the test of use it does not fall behind in exactitude and completeness, though the mass of the material dealt with may be judged from the fact that the temples within the limited field concerned reach the amazing total of over sixty. It is true that the real tests of constant use and consultation cannot be applied to a newly published book. But the first volume has been longer in our hands, and the reviewer can report that the small slips and omissions he has so far discovered in it do not amount to more than half a dozen. There may be more such flaws in the present volume, since it deals with a more straggling field and one that has invited a larger display of human negligence by copyists. Authors who follow the reviewer in applying the ready test of citations from their own minor productions may find, like him, that the volume is not quite faultless. They will have more difficulty in proving error; so that the fault is at least on the right side. But the real irritation the book will more often afford will be the discovery that identifications which readers supposed to be only within the range of their own acumen have been embodied in the volume in the ordinary way of business. Short of the indices, for which we must necessarily wait (though in estimating the value of the book this large bonus which will accrue before long must be taken into account), the volume seems admirably complete and provided with sign-posts for the absent-minded at every turn. The happy combination of two authors, one for the library and another ready to pursue evasive references into the field, has allowed the book to take such shape that it is equally serviceable for use at home and for control of the actual monuments on the spot.

The addition of the simplified plans is of the utmost value for work in the field, and should render the book a real incentive to future labour as well as fulfil its main aim of tabulating that of the past. The stretches of temple walls, blank of all the little numbers that indicate that some scholar has laboured

there, visibly confront the young with the responsibilities bequeathed to them by those who have passed away with unfinished hopes and projects. The real magnitude of this task is of course only known to those who at home are conscious how much that has been done must be re-done, and to those in the field who see with their own eyes, and not merely with those of the new Baedeker, what amount of these unnoted spaces are blank or destroyed and what occupied by texts and scenes. How many a wandering scholar has been checked in a virtuous proposal to record an interesting fragment by the fear that he may only be duplicating an existing copy, perhaps in a less adequate way! How many may be instigated to action by the proof staring them in the face that a record of value has been neglected!

This incentive to fruitful work is especially needed in the great conglomerate of depressing ruins which is Karnak. These simple diagrams might give the final impulse, converting inaction into organized concern with this great archive of the Empire; for indignation at the treatment it has so far received is becoming more and more real. If the great scholarly survey of the site is not yet possible, there might be a self-denying ordinance in force by which each trained visitor to Thebes would contribute two or three days' work towards the publication by sketch, snap-shot, or hand-copy, accompanied by a minimum of comment, of an assigned wall, court, or pylon. If only we had an Anglo-American Institute in Egypt of the simplest but most authoritative sort to allocate the tasks and incite to such a precise reconnaissance by all arms!

No one who uses this labour-saving book should fail to reflect what labour of compilation, revision, verification, it must have entailed, both in the case of the undocketed, or wrongly docketed, sketches in the unpublished manuscripts and note-books which have been included in its scope, and in the more toilsome, though scarcely so irritating, running of the (sometimes ignoble) quarry to earth on the temple walls, whether among the camel-thorns of Karnak or the bat-haunted walls of Dêr esh-Shelwît. But neither should he forget the devoted labours of the past and the enthusiastic zeal—difficult to recapture in its single-mindedness—which animated these workers of the past. The reviewer has had the curiosity to take 16 typical pages here and there from this list of the contributions of many lands to our science and to analyze them, so far as citations go. Of this quantum France has contributed 189, of which Champollion furnishes one third; England (including Naville's work at Dêr el-Baḥrî), 165, of which Hay, Burton, and Wilkinson's work forms one quarter; Germany, who only came into the field when these protagonists had left it, 158, Lepsius being credited with nearly the third part. Italy has given 73, but, as 70 of these are from Rosellini, one may justly feel that her debt to his name remains unpaid. America with 21, Belgium with 18, Switzerland with 8, will, we may be assured, not long remain content with this; for the contributors are almost confined to three or four men, all living. The rest of the world is represented by Spain with one entry. One feels that some small, but no less cultured, nations, have not yet played their proper part in the *entente*. Of course we are dealing here with records, not with historical or philological research; but the former, though not at all a personal obligation, ought to be a national one.

The elucidating plans being so important and so well equipped, it is a pity that that on p. 26 has been allowed to become almost illegible, and that the two halves of Luxor temple on p. 98 have been skimped of their proper two pages.

N. DE G. DAVIES.

*Annals of Archaeology and Anthropology*. Vol. XVI. Liverpool University Press, 1929.

The present volume of the *Annals* contains much of Egyptological interest. Mr. Robert Mond and Mr. Walter Emery contribute a preliminary report on the excavations carried out by them at Armant, the ancient Hermonthis, the seat of the cult of the Buchis bulls. A provisional survey of the site was made in 1926 and an area marked out for excavation. The necessary concession having been obtained from the Government, work began in January 1927. The principal result of the season's work was the discovery of a great vault, containing a vast quartzite sarcophagus that had once held the mummified body of a Buchis bull, or rather, of the mother of a bull. The lid of the sarcophagus was raised by means of mechanical appliances, and some idea of the gigantic size of the whole can be gained from the fact that the weight of the lid alone is estimated at over twenty tons.

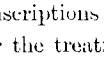
Unfortunately the burial had been plundered, but the débris that remained shows that the great mummy had been lavishly bedecked. There were fragments of blue faience amulets, of beads, of gold foil, and of the bier on which the body within the sarcophagus had rested. All the bones of the skeleton were found with the exception of the skull, which the ancient robbers had carried off; from this it is evident

that most of the valuables must have been attached to the head of the mummy. A second vault contained, like the first, a quartzite sarcophagus, and this in its turn contained the headless skeleton of a plundered mummy, with beads, fragments of gold foil and portions of the bier.

The concession of this site was transferred to the Egypt Exploration Society, the results of whose campaign were exhibited in London last summer.

Dr. Hall describes and figures an interesting series of Egyptian statuettes of bronze and copper belonging to the Middle Kingdom or even earlier. Most of these are in the British Museum, but two kindred specimens, one in private ownership and the other in the Fitzwilliam Museum, Cambridge, are included in the series; also three female figures, probably of Saite date, belonging to Mr. G. D. Hornblower. Dr. Hall also publishes photographs of two animal-headed lids of Canopic jars that he considers, on the grounds of their technique, to be of Middle Kingdom date. Hitherto no instance of animal-headed Canopic jars anterior to the Nineteenth Dynasty (or possibly late Eighteenth) has been recorded, and if Dr. Hall's opinion as to the date of his specimens is correct (an opinion that is favoured by all the circumstances of the case), it shows that the discontinuance of the use of human-headed jars, in favour of animal-headed, was not an innovation of the Nineteenth Dynasty, but a reversion to a far earlier practice.

Mr. Mond and Mr. Emery have given a full and detailed account of the excavations they carried out in 1926 in the burial shaft of the Theban Tomb of Amenemhēt (No. 97 of the Catalogue, not the more widely-known No. 82). The inscriptions in this tomb have already been published, but the court and shaft have never before been completely cleared. The clearance of the site revealed the fact that a Coptic church had been built partly over the court of this tomb, and amid the ruins was found the bowl of the font, sculptured in white limestone with a floral border. The burial shaft, which was very deep, had been re-used in later times, as had also the chambers communicating with it. Of the original Eighteenth Dynasty burial equipment of Amenemhēt himself, nothing remained but insignificant fragments, but in a recess in one of the walls was a treasure that the ancient robbers had overlooked—a magnificent "Tet"-amulet of blue faience and gold. The specimen is a particularly fine one, and well merits the dignity of the coloured plate in which it is depicted.

The shaft and chambers were filled with intrusive mummies of later date. These the authors ascribe to the Saite period, but to the reviewer it would appear, from a careful examination of plates, that these should be assigned to a slightly earlier period. The coffins are not of the "pedestal" type that was general in the Twenty-sixth Dynasty, nor do the inscriptions contain the archaistic plurals such as  , etc. that were usual at that period. Moreover the treatment of the bodies themselves suggests the interval between the end of the Twenty-second and the beginning of the Twenty-sixth Dynasties. Saite mummies were carefully prepared with resin, whereas the mummies from the tomb of Amenemhēt are described as "prepared with natron." They represent, in the reviewer's opinion, the decadent period during which the elaborate technique of embalming that was in vogue during the Twenty-first and early Twenty-second Dynasties had degenerated, and before the new style of the Twenty-sixth Dynasty had been introduced. Such intermediate mummies, owing to imperfect desiccation and the absence or paucity of resin, usually fall to dust when unwrapped. Of one of these mummies it is stated (p. 58) that the embalming-incision is on the right side of the body. This is a detail of great interest, as only two other instances of dextral incisions are known. With these three exceptions all other mummies of which we have records were incised in the left flank. The authors do not state whether the brain had been removed through the nostrils as was usual. As the nasal septum is damaged in many of the skulls photographed, it seems probable that this procedure had been followed.

A striking and valuable feature that has always characterized the *Annals*, namely the large series of plates, is fully maintained in this volume, which contains no less than eighty-one.

WARREN R. DAWSON.

*Lectures on Egyptian Art.* By JEAN CAPART. Chapel Hill: The University of North Carolina Press, 1928.

Professor Capart's name is associated with a series of important and sumptuous volumes dealing with Egyptian art, and to this he has added a well-produced and profusely illustrated book containing six lectures delivered by him during his visit to America in the winter of 1924–5. These lectures, although each bears a specific title, cover the whole field of Egyptian art at its best, and they comprise discussions of some of the well-known masterpieces of sculpture, painting and handicraft, to our appreciation of which the tomb of Tutankhamūn has so greatly contributed. A very interesting chapter on Egyptian aesthetics follows, and another on selected masterpieces of industrial art. The ruins of Thebes, the visit

of the Queen of the Belgians to the tomb of Tutankhamūn, and a summary of the most striking discoveries made by excavators in Egypt during the last century, make up a charmingly written and entertaining book.

Professor Capart has ranged over the field of Egyptian art so often that one is apt to think of it as worked out. In each of his books, however, he has presented new suggestions and new interpretations, and those who keep his books at hand for reference and for study will gladly add the present volume to the series, not only for the masterly exposition of its subject, but for the large series of beautifully produced photographs, one hundred and eighty-eight in number, with which it is enriched.

WARREN R. DAWSON.

*Bericht über die von der Akademie der Wissenschaften in Wien nach dem Westdelta entsendete Expedition (20. Dezember 1927 bis 25. Februar 1928).* By HERMANN JUNKER. (Akad. d. Wiss. in Wien, Phil.-hist. Klasse, *Denkschriften*, 68. Band, 3. Abhandlung.) Vienna and Leipzig, 1928.

In archaeology it never rains but it pours. It is but a few years since the discovery of Badârî took the archaeology of the predynastic period a stage further back. This was at once followed by Miss Caton Thompson's discoveries in the Fayyûm. The expedition of the Vienna Academy revealed two early stations which do not correspond exactly to anything found either at Badârî or in the Fayyûm, and now Mr. Brunton has made us acquainted with a pre-Badarian stage in Upper Egypt which he calls Tasian. All these novelties are very bewildering, and it will doubtless need some years of further exploration and excavation before the finds can be arranged in a correct cultural and temporal sequence.

Dr. Junker's report deals mainly with two sites, a microlithic station at Abu Ghâlib and a neolithic settlement at Merimdah Beni Salâmah. This last has, since the report was published, been excavated, and the results have very closely borne out the opinions based by Dr. Junker on the objects collected in the surface exploration.

The finds made at Abu Ghâlib consist entirely of flint implements, which by their forms and small size clearly belong to the late palaeolithic stage known in North Africa as the Capsian. Other stations assigned to this culture are known in Egypt, notably at Nag' Ḥammâdî, Sebîl near Kom Ombo, and Ḥelwân. The finder of the second of these has given the name Sebilian to the culture which is represented there, and has divided it into two stages. Junker would equate the Nag' Ḥammâdî finds with the earlier stage of Sebil, while Ḥelwân must be later than either stage. The new finds at Abu Ghâlib do not fall within this series; they are definitely later, though they are still to be classed within the wider limits of the Capsian.

The settlement visited by the expedition at Beni Salâmah is definitely neolithic; it produced no metal, but it did produce large quantities of pottery. This shows considerable variety: there are polished and unpolished wares in red, black and reddish-black. There are even two fragments of stone vessels. The stone implements consist of celts, mostly of flaked flint, sometimes partly polished (one of porphyry and another of nephrite?), saws, arrowheads with concave base, and knife-blades. Junker, relying partly on the technique and variety of the pottery, refuses to place his station very early in the neolithic period. It is later than the neolithic settlement at Ḥelwân, and consequently than the still earlier Fayyûm-culture.

As against the early stations of Upper Egypt, Badârî and its successor Naḳâdah, those of Beni Salâmah, Ḥelwân and the Fayyûm (with which may be grouped the rather later vases found in 1910 at Ṭurah) form, despite points of difference among themselves, a comparatively homogeneous northern group. In point of development Badârî, with its faience, its copper, its ivory, and its slate palettes, is later than the northern group, though Junker very wisely remarks that a higher stage of development must not always be taken as a proof of later date.

Junker has a valuable section on the results of the expedition for the pre-history of the Delta. Here he points out that there is no evidence that the Delta was in early times mere marsh land, devoid of spots suitable for the development of culture; nor is there reason to suppose that the neolithic civilization of the Delta was any lower than that of Upper Egypt.

Egyptologists will look forward with interest to the continuation of these researches, even if a little appalled by the feeling that the boundary of our science is being pushed back with a rapidity which it is almost impossible to follow.

T. ERIC PEET.

*Die ägyptische Literatur.* By MAX PIEPER. Published as part of *Handbuch der Literaturwissenschaft*, edited by OSKAR WALZEL. Wildpark-Potsdam, 1927.

Dr. Pieper's work is one of the very greatest importance, for it is, oddly enough, the first attempt which has been made in any language to assess the literary value of the writings of the ancient Egyptians. It will not, perhaps, receive the attention it deserves, partly because it has the outward appearance of an *œuvre de vulgarisation*, partly because it cannot, unfortunately, be bought separately from the series to which it belongs. Nevertheless, it is a book which every Egyptologist ought to read and ponder, for it will be the basis of all future literary criticism of ancient Egypt.

T. ERIC PEET.

*Grundriss der antiken Zeitrechnung.* By WILHELM KUBITSCHEK. In the series *Handbuch der Altertumswissenschaft*, edited by WALTER OTTO. Munich, 1928.

This book is mainly concerned with methods of time-reckoning in the classical period. The earlier history of the subject is, however, not shirked, and on pp. 87–99, under the heading *Anfang der bürgerlichen Jahresrechnung*, is a very good summary of our present knowledge of the Egyptian contributions to calendar-making. The writer claims, however, that, at any rate from the Sixth Dynasty onward, three different years must be distinguished in Egypt: the movable civil year of 365 days, the Sirius year of $365\frac{1}{4}$ days, and a peasant or natural (seasonal) year "divided into months, as shown by the example of the inscription of Una and by that of the Canopic Decree, whatever explanation be given of it." The problem of Egyptian chronology is thorny enough as it is, and those who have for the purposes of their work been compelled to enter upon it in any detail will be sorry if it is to be made still more difficult by the introduction of yet a third year. Nor does Dr. Kubitschek convince me that this is necessary. His third, or peasant year, he admits, "can have been nothing but a Sirius year, and must have been based upon the flooding of the Nile valley by the river and also upon agricultural work." It is thus hard to see in what sense these two Sirius years are to be, or can be, "kept strictly apart." When Una states (*Urk. des Alten Reichs*, 109) that there was no water in the canals in the third month of summer, he is speaking of the movable civil year; that his statement seems to apply equally well to the Sirius year and therefore to the postulated peasant year is a mere accident, due to the margin of error which his statement allows (he gives no day of the month, and the period during which there was no water in the canals, or at least not enough for his purpose, would be considerable), combined with the fact that his exploit took place at no great distance from the beginning of a Sothic Period, when Sirius year and civil year were still but little discrepant.

Nor can I find in the Canopic Decree anything which necessitates the assumption of a third or peasant year. In the first place the decree does not say, as Kubitschek states that it does, that "festivals which belong in the summer (*in den Sommer gehören*, p. 89) are being held in the winter, and vice versa," but only that the same festivals are at one time being celebrated in winter and at another in summer. It is just possible that the festivals referred to were such as by their nature and origin belonged rather to the one season or to the other, but none of the three texts expressly states this. In the second place, however this may be, it is hard to find anything in the decree which reveals formal recognition of more than one year, namely the movable civil year. Certain festivals, it states, were observed according to this year, and were consequently altering their position in respect to the recurring agricultural or seasonal events. But we cannot deduce from this, as Kubitschek would have us do, the existence in the minds of the Egyptians, or any section of them, of a peasant year divided into months. The Egyptians dated normally by the civil year. They realized, as the evidence of the Canopic Decree itself would suffice to show, that this year was discrepant with the seasons. We may go further, for it appears from the Ebers Calendar that the Sirius year, with which the seasons are, within a very small fraction, in agreement, had its months and days just as the civil year had. But of any third year, capable of division into months, there is no trace.

T. ERIC PEET.

*Magician and Leech.* By WARREN R. DAWSON, F.R.S.E. London, Methuen & Co., Ltd., 1929. Pp. x + 149.

The last three decades have witnessed a remarkable revival of interest in the history of the healing art, and imposing volumes have appeared embodying the cumulative result of recent discoveries in many countries.

The volume before us, although of more limited scope, forms a valuable contribution to the subject, more especially as illustrated by the records of ancient Egypt. Its main virtue lies in the judicious elimination of secondary details and the resulting concentration of the reader's attention on the essential stages by which the magician gradually evolved into the physician. That evolution consisted of three main phases: (*a*) the treatment of disease by magic, associated with spells and incantations, frequently supplemented by amulets and charms charged with occult power; (*b*) the association of spells and incantations with a manual rite in the form of a drug; (*c*) the introduction of rational therapeutics, when the scientific spirit was born in the days of the great Greek physicians. The evolution, however, is still incomplete, since even to-day magic, clothed in modern garb, plays a share in the treatment of disease, although often unrecognized even by its exponents.

The value of the volume is enhanced by the fact that the author, a well-read Egyptologist, has based his narrative on a careful study of the original texts, and especially on an intensive enquiry into the process of mummification, which has largely contributed to our knowledge of anatomy. One of the most useful chapters is that describing the earliest medical books known to the world, which were inscribed on papyrus and preserved during many centuries in the dry deserts of Egypt.

Another chapter deals with the uninterrupted use of the same drugs from predynastic days down to the present century. Thus the ancient custom of administering mice to sick children can be traced down through the ages, and even in the British Isles the practice has lasted until recent years. This in all probability useless remedy has persisted for more than sixty centuries!

Mr. Dawson presents his conclusions in an easily assimilable form, and the volume may be recommended as a first reading book to those who propose to embark on the difficult problems of Pharaonic medicine. The student may have full confidence that his guide is a well-equipped master of the subject, who is writing from first-hand knowledge. The abundance of references to authorities will assist readers desirous for further details. Unfortunately some misprints have crept in, which will no doubt be corrected in the new edition which is likely to be called for at an early date. The volume is enriched by four plates and by an adequate index.

JAMIESON B. HURRY.



Statuette No. 1237 in the British Museum.
*Scale c.* ½.

# TWO MIDDLE KINGDOM STATUES IN THE BRITISH MUSEUM

By H. R. HALL

With Plates xxv–xxvii.

The two stone figures here illustrated (Plates xxv–xxvii) stand side by side in the Egyptian Gallery of the British Museum. One is a very fine achievement of the Twelfth Dynasty, in grey granite, the other a rather rough work of the Thirteenth, in red sandstone. Both have been published already; the first (No. 1237) by Dr. H. G. Evers in his recent book *Staat aus dem Stein* (Munich, 1929), Pl. 98; the second (No. 1229) by Sir Ernest Budge in his *Guide to the Egyptian Galleries* (*Sculptures*), 84 (1909), and in his *Egyptian Sculpture in the British Museum*, Pl. xv. Its exhibition number is 289. The first, whose exhibition number is 288, is said to have come from Benhâ, and so is described by Budge (*op. cit.*, 83, *sub* No. 288) as "an ecclesiastical or civil official of high rank," and by Evers (*ibid.*) as a "prince," of Athribis. There is, however, no inscription on this figure of any kind, but we may perhaps assume that it came from Athribis, which is probable enough if it was found at Benhâ. Dr. Evers considers it to be certainly Lower Egyptian work, and its date is agreed to be Twelfth Dynasty; Dr. Evers, however, goes further and claims, on the authority of its style, that it belongs to "the first half of the generation of Amenemḥet III." Similarly, the other figure, stated to have been found at Zaḳâzîḳ, is presumably therefore of Bubastite origin. It is inscribed, unlike the first, but the inscription (Fig. 1) tells us nothing on this point. The figure carries a sort of shrine in front, on which are rudely cut the signs



"May the King give an offering and Anup on his hill, in Uot, lord of Tazoser, funerary meals to the venerated.... May the King give an offering and funerary meals to the venerated before the great god, Nebper (?), whose good name is Iri."

The inscription is also published in *Hierogl. Texts*, v, Pl. 13 (cf. *op. cit.*, v, 6).

Below are two male standing figures facing inwards and each holding a *kherp*-sceptre horizontally in one hand and a long staff, which touches the ground, vertically in the other. The cutting of both figures and hieroglyphs is of the roughest possible description, and the inscription is confused and rather illiterate. But it proves the date of the figure, which otherwise from its appearance might have been taken to be Saïte, with its shrine in front, its plinth behind, and its shaven head. It is one of those figures of that peculiar type which belongs to the later Middle Kingdom, but was imitated so constantly by the Saïte, Sebennytite, and Ptolemaic sculptors that it is usually associated in our minds with *Spätzeit*, "la basse époque." The man wears, as in the archaistic imitations of the type, a long skirted garment girded up high round the chest and projecting in part below (a characteristic male dress of the Old and Middle Kingdom): his head is shaven

and bare like that of the Sebekemsauf at Vienna (Steindorff, *Kunst der Aegypter*, 205–6), also of the Thirteenth Dynasty and equally Saïte-looking; he holds his shrine with both hands, the arms at full length. The feet are broken off. The figure is 2 ft. 11 ins. (88·8 cm.) tall. The plinth behind is cut away on both sides at the top behind the head to form a couped gable. The stone is coarse and bad, of quartzite character, hard, with nodules and holes.

That of No. 1237, on the other hand, is a very beautiful grey granite, a little too spotty perhaps from overmuch distribution in it of white quartz, but otherwise very pleasing. The figure is well carved, and though the face is not highly individual the dress and pose both are. The sweep of the very unusual long cloak that the man clasps about him is admirably represented. The beard is rather more individual than the wig, which is of the type usual at the time and retained for funerary statues under the Eighteenth Dynasty (note the British Museum figures of Senenmut and Menkheperraʿsenb, *Journal*, XIV (1928), Pls. i–iii). It is of course a funerary figure, probably an *ex voto* in the temple of Hathor at Hettoḥribe, which the Greeks called Athribis, as No. 1229 was probably an *ex voto* in the temple of Bubastis. No. 1237 is 2 ft. 1 in. (63·5 cm.) high. As in the case of 1229, its feet also are broken off. It is a remarkably fine and interesting example of the sculpture of the Twelfth Dynasty.



Fig. 1

Both 1229 and 1237 are figures of special interest each in its own way; both are unusual works, and it seemed to me that they deserved special attention apart from their original publications.

Further, I desire to draw special attention to No. 1229 because Dr. Evers has in *Staat aus dem Stein* erroneously stated that the figure has been misdated in the British Museum to the Middle Kingdom, being in reality "Spätzeit" (*Staat aus dem Stein*, II, 117, § 726: "Andere mit Unrecht ins Mittlere Reich gesetzte Werke"). His reference is to Budge, *Egyptian Sculpture in the Brit. Mus.*, Pl. 15. Of course the first impression one has of the figure is that it is Saïte or later, but this impression is corrected by the inscription, which is obviously of the late Middle Kingdom and of no other period, with its prayer to Anup and its .....

The British Museum dating of this figure is therefore correct. It is of the same date and kind as the Sebekemsauf at Vienna, as has been said above.



1



2



3

Statuette No. 1237 in the British Museum.

*Scale c.* ½.

Statuette No. 1229 in the British Museum.
*Scale* ½.

# THE ROMAN REGULATION OF EXCHANGE VALUES IN EGYPT: A NOTE

By J. G. MILNE

In the collection of administrative regulations known as the Gnomon of the Idiologus, there is one which throws some light on the economic policy of the Roman Emperors in Egypt. The copy of the Gnomon which has survived was compiled shortly after 150 A.D., but it includes decisions and precedents of earlier date, some clearly going back to the beginning of Roman rule in the country, and as a whole it may be taken as indicating the lines on which the government consistently acted.

The regulation in question (106) runs—*νόμισμα πλέον οὗ ἰσχύει οὐκ ἐξὸν κερματίζειν*: and this is evidently intended to regulate rates of exchange. The word *νόμισμα*, when used without further qualification, in Egyptian documents of the first two and a half centuries A.D., normally means the debased silver tetradrachm of Alexandria: *κέρμα* was the generic term for currency of lower values, which till towards 200 A.D. consisted entirely of bronze of various denominations, from the drachma downwards. So the object was to prohibit the tetradrachm being accounted as worth more than four drachmas of small bronze change, or, in other words, being overvalued in terms of bronze.

The explanation of this must be found in Ptolemaic times, when practically all the internal trade of Egypt was done on the basis of a copper or bronze currency: during the latter half of the rule of the Ptolemies, prices were regularly quoted in *δραχμαὶ χαλκοῦ*, which were equated with silver, when necessary, at a ratio of about 480 = 1[1]. But the local bullion value of silver was so high that, even when the tetradrachm was debased to only about 25 °/₀ fine, it still contained more than four drachmas worth of silver at Egyptian metal price, and there would be a continual risk of its being withdrawn from circulation for hoarding or melting: it would pay speculators to buy tetradrachms for more than their nominal value in bronze. The government could, and probably did, meet the difficulty to some extent by controlling the output and internal circulation of tetradrachms[2]: but it had to recognize the situation and offer a premium on payments in silver by taking tetradrachms at an enhanced rate, usually 26¼ obols instead of 24, the nominal value.

The Roman conquest altered the position, as the authorities now wished to control the exchange not in the interest of the Egyptians, but in that of outsiders: and so the copper standard was abolished and prices were quoted not *χαλκοῦ* but *ἀργυρίου*. The bronze coinage gradually dwindled and the debased silver became more plentiful, till under Nero the country was flooded with tetradrachms[3]. The price of silver in Egypt of course did not trouble the Roman Emperors: they had not to buy their silver outside their dominions, as the Ptolemies had, but could ship denarii to Alexandria when necessary, melt them down with three times their weight of base metal, and recoin them as

[1] See *Ptolemaic Coinage in Egypt*, *Journal*, XV, 150.

[2] Compare the control of the circulation of the gold coinage in England at present.

[3] See *Historical Studies* (B.S.A. Egypt), II, 30.

tetradrachms. But it did concern the Roman merchant: and, if he had to buy Egyptian currency, it was important to him that the local value of the tetradrachm should not be in excess of its value at Rome or on other foreign exchanges.

Now, in spite of the large issues of tetradrachms, bronze continued to be in effect the popular currency of Egypt: this is shown by the condition of the coins which have been preserved. Gold was, as it always had been, purely bullion[1]: Roman gold coins are virtually never found in Egypt except in hoards before the fourth century. Ptolemaic silver is also more commonly obtained in hoards than in isolated examples: and its treatment as bullion, even in the earliest period of its issue, is shown by the way in which a large proportion of the tetradrachms are punch-marked[2]. The tradition continued, and the Roman bronze of Alexandria got much harder wear than the silver: it is easy to obtain a series of Alexandrian tetradrachms in good condition, but no collector or museum has yet succeeded in getting together any number of fine specimens of the bronze. The casual finds on Roman sites also show an enormous preponderance of bronze over silver[3].

It is most probable therefore that the tetradrachm was still regarded in Egypt as worth more than its nominal value in bronze[4]. But its value abroad was regulated by its silver content in relation to that of the Roman currency which was accepted in the rest of the Empire: that is, it was treated as the equivalent of the denarius. And the tetradrachm was the basis of reckoning for all business done in Egypt. The regulation quoted from the Gnomon was therefore one made in the interests of the foreign merchants[5], to secure that they should not have to pay more highly for Egyptian currency in consequence of its being forced up in the local market.

[1] Sir Flinders Petrie drew my attention to the fact that some Ptolemaic gold coins were scratched as if by being carried in quantity as bullion, not rubbed by circulation: and this is true to a large extent of Ptolemaic gold generally.

[2] Punch-marks, as distinct from counter-marks, are characteristic of certain series of Greek coins which circulated in places or under conditions where their guarantee of specie-value was not effective: such as the early Lydian electrum, Persian sigloi (in certain areas), and early Eleian silver.

[3] See, for instance, *The Coins from Oxyrhynchus*, *Journal*, VIII, 158.

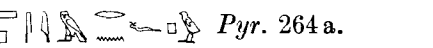
[4] The Ptolemaic formulae of equation recur occasionally in Roman papyri: but they may be merely archaistic survivals, though they are interesting as showing the lingering of tradition.

[5] The Jewish merchants at Alexandria would probably benefit as much as the Romans, by reason of their international organization: so this may be one of the grounds of the grievance of the Alexandrians against the Jews in the first century.

# A MISCONSTRUED PARTICLE IN THE PYRAMID TEXTS

By R. O. FAULKNER

In *Wb. d. aeg. Spr.*, II, 36, appears the entry "*mj* (*mjj*)  belegt *Pyr.* viell. eine Form des Fragewortes *m* in: 'Wer da? sagen' ." The word in question occurs in two instances only:

O *'Iȝw*  *Pyr.* 264a.

Hail, Doorkeeper of Horus... *Pyr.* 520b.

Now, if an attempt be made to translate these passages on the basis of the *Wb.* rendering of , considerable difficulties will be encountered. The first sentence, on this view of the word, can only be translated "O *'Iȝw*, say 'Who is there?' to the August One in this his name[1]," a rendering which is, to say the least, unconvincing, while it is impossible to obtain a coherent translation of the second sentence on those lines; in this case *rn*, not *mìi*, is clearly the object of *ỉḏd*[2]. If, on the other hand,  be regarded as simply a variant writing of *m* "who?" and therefore as subject of *ḏd*, fresh difficulties emerge. In the first place, in neither instance does the supposed question "who says...?" receive an answer; secondly, both sentences are introduced by a vocative, and the combination of a vocative with the form  with prothetic  in *Pyr.* 520b shows clearly that the verb *ḏd* is in the imperative in both cases. On all grounds, therefore, it seems impossible to interpret these two passages as questions.

If, however, the view that  is an interrogative be rejected, it becomes necessary to seek an alternative explanation. Now in *Pyr.* 597c the celestial ferryman is addressed thus:  "Announce the name of Teti to Rēʿ, introduce Teti to Rēʿ." Apart from the absence of the word , the parallelism of the first part of this sentence to the second passage under discussion (*Pyr.* 520b) is striking, extending even to the use of the prothetic  in the verb-form, and suggesting that the latter passage should be translated in the same way. Unfortunately it has a lacuna where the dative would normally stand, but if it be translated "Hail, Doorkeeper of Horus...[3], announce the name of Teti [to the...] of Horus," a straightforward rendering is obtained which is quite in accord with the continuation "(for) he has come bearing spittle for hair unto this his hair[4]." If now the passage *Pyr.* 264a be translated along the same lines, again an intelligible sense is obtained: "O *'Iȝw*, announce to yon August One (*špś ỉm*) this his

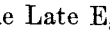
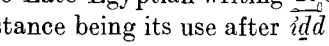
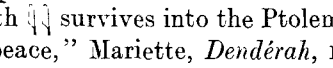
[1] The text continues "Wenis is this one who belongs to the *zšzš*-flower which springs up (?!) from the earth."

[2] Other examples of *rn* "name" as object of *ḏd* are *Pyr.* 597c; 1223b; 1268b—1274b; *Urk.* v. 169, 1.

[3] The damaged passage after "Horus" should probably be rendered "who art at the portal of Osiris."

[4] This is an allusion to the use of spittle in folk-medicine as a means of healing; Horus (or the...*w* of Horus) is going bald and Teti has arrived with the necessary remedy. Compare *Pyr.* 2055; 2056.

name[1]," the suffix in *rn·f* anticipating the name of Wenis in the next sentence "(for) Wenis is he who belongs to the *zšzš*-flower.'

The correctness of the translations proposed above seems attested by the fact that they make sense, although they do not take into account the word , which thus seems to have little or no syntactic force, and appears to be simply a weak enclitic particle. The fact that in both cases it follows directly on an imperative points clearly to its being the Old Egyptian prototype of the enclitic particle  which is used in Middle Egyptian to reinforce imperatives (see Gardiner, *Eg. Gramm.*, § 250), and confirmation of this view is found in the Late Egyptian writing [2] with the double  as in the Pyr., a peculiarly apposite instance being its use after *ỉdd* in  "Now tell me the manner of thy father's going," *Pap. Mayer A*, 2, 18. The full form with  survives into the Ptolemaic period;  "behold thy beautiful face in peace," Mariette, *Dendérah*, IV, 26/a, *apud* Junker, *Grammatik der Denderatexte*, § 245, first example.

In conclusion, it may be remarked that the non-enclitic use of  as the first word in the sentence, of which one instance has been noted in Middle Egyptian (Gardiner, *op. cit.*, § 250, third example), is found also in the Ptolemaic texts (Junker, *op. cit.*, § 245, second example).

[1] On the position of the dative before the object cf. Gardiner, *Eg. Gramm.* § 507, 2, especially the fifth example.

[2] See Gardiner, *Admonitions*, 105, whence the references for the two following examples were obtained.

# NOTES ON THE RITUAL OF OPENING THE MOUTH

By T. J. C. BALY

The following article makes no attempt at a serious philological study of an exceedingly difficult text but merely proposes to clear the ground for future work on the rite by critically examining the order of the episodes and offering certain parallels in explanation[1].

## Previous Work[2].

The work already published on this subject has been suggestive but invariably—I hope to show—at least partially, erroneous. M. Moret has made certain remarks on the rite in both *Le rituel du culte divin journalier* and *Mystères égyptiens*. His theory seems to be correct in so far as it refers to the capture of the soul but it is vitiated by his impossible identification of the Sem sleeping on the bed with the Tekenu of other funerary scenes. The main thesis exposed in *Mystères égyptiens* is that the Opening of the Mouth is a later form of those funerary rites in which the Tekenu appears, the transition being from human sacrifice to a man representing the sacrificed one and thence from that man (the Tekenu) to the Sem sleeping on the bed. His explanation appears to be that the Sem in so wrapping himself up assumes a pseudo-embryonic form and so symbolizes the rebirth of the dead man by passing for him through the sacred Meskhent, a view apparently developed from indications in an article by Maspero[3]. Here Moret appears to put aside the opening of the mouth with the various implements though in his *Rituel du culte divin* he refers to it as endowing the statue with the power of movement.

In this work, indeed, he takes up a more easily maintainable position as to the general meaning, and on that foundation Frazer[4] has developed a more accurate estimate of the rite. Moret maintains that the Opening of the Mouth represents the search for, and recovery of, the Lost Horus Eye. He continues as follows (*Culte divin*, 34–5): "La restitution de l'œil, c'est-à-dire l'âme qui y réside, au cadavre s'accompagnait de rites solennels: on apportait à la momie un cœur, on lui amenait sa statue et son ombre, et le fils d'Osiris ou du mort, prenant à deux bras la momie ou la statue, l'embrassait à communiquer sa vie. A l'origine, on revêtait le mort ou le dieu de la peau de l'animal sacrifié, dans le ventre duquel on avait retrouvé l'âme, et l'officiant lui-même continua à se vêtir d'une peau de bête (panthère); on pensait assurer ainsi la force jadis redoutable de l'animal à celui qui se revêtait de sa dépouille. Dès lors, l'âme rendue au corps, la momie ranimée était prête à subir les autres rites."

[1] I must acknowledge with gratitude the constant help of Dr. Blackman in the publication of this article.

[2] The *locus classicus* is of course Schiaparelli, *Il Libro dei Funerali*.

[3] *Revue de l'histoire des religions*, XV, 159 ff. = *Études myth. arch.*, I, 283.

[4] Taboo and Perils of the Soul. (*G. B*$^3$., II.)

Frazer writes as follows[1]: "The Ancient Egyptians held that a dead man is not in a state to enter on the life hereafter until his soul has been found and restored to his mummified body. The vital spark had been commonly devoured by the malignant god Sit, who concealed his form in the likeness of a horned beast, such as an ox or gazelle. So the priest went in search of the missing spirit, slaughtered the animal which had devoured it, and cutting open the carcase found the soul still undigested in its stomach. Afterwards the son of the deceased embraced the mummy or image in order to restore his soul to him."

There the matter rested until in 1924 Dr. Blackman opened up a new and interesting line of thought by the publication[2] of a parallel text from Babylonia, which, however, did not contain the sleeping of the Sem or the slaughter of an animal, at least not in the Egyptian fashion. He suggested that the Babylonian rite was an adaptation of the Egyptian. This was followed by an article in which Mr. Sidney Smith gave a further and fuller text of the Babylonian rite[3].

Since then nothing has been published directly upon the text, but Sethe's *Dramatische Texte* have thrown much light upon the language used in it and shown that it is a text of the same type as the two published by him and presumably of the same early date.

### Copies of the Texts.

The copies we have are of varying date. The earliest reference to the rite is of the Fourth Dynasty, in the Tomb of Methen (L., *D.*, II, 4), where it is just mentioned by name. The next example to be found is in the Pyramid Texts, where, however—it is worth noting—only the purifications and adornments, and the opening of the mouth with the various implements appear. The possibility of this having any significance will be discussed later. The Middle Kingdom seems to be completely blank with regard to our text[4] and the next example I have been able to note is that in the Tomb of Rekhmara. After this we never lose sight of it, and it appears in Dynasties XIX, XXI, and XXV–XXVI, and in Saïte, Ptolemaic, and Roman times. The texts I have used for the discussion of the order are[5]:

| | | |
|---|---|---|
| The Pyramid Texts | Dyn. V–VI | Pyr. |
| The tomb of Rekhmara | ,, XVIII | R. |
| The tomb of Seti I | ,, XIX | S. |
| The coffin of Buthaiamon | ,, XXI | B. |
| The tomb-chapel of Imeniritis | ,, XXV–XXVI | Im. |
| The tomb of Petamonope | Saitic | P. |
| Pap. Cairo 36803 | Late Ptol.–Early Rom. | X. |
| Papyrus of the "Hathor" Sais | Roman | L. |

[1] *Op. cit.*, p. 68, referring to Moret, *Culte divin*, pp. 32–5 and 83 ff.

[2] *Journal*, X (1924), p. 47 ff.

[3] *J.R.A.S.*, 1925, p. 37 ff.

[4] There are mentions of it, however, showing that it had not dropped out of use.

[5] Pyr: Sethe's Edition. R: Virey, *Mémoires de la Mission française*, V. S: Schiaparelli, *Il Libro dei Funerali*. B: Schiaparelli, *op. cit.* Im: *Rec. trav.*, XXIII, 10. P: Dümichen, *Des Grabpalast des Patuamenap*, II. X: *Ann. Serv.*, XIII, 257. L: Schiaparelli, *op. cit.* Two further texts which are of no value for discussion of the order but which may be noted are the Tomb of Amenemhet (Gardiner-Davies, *Amenemhet*) and that of Horemheb (*Mém. Miss.*, V, 428), both Eighteenth Dynasty.

Of these B and L (after 18) are the most complete, though P, when it has once started, which it does with the first slaughter, is equally complete. Each of these contains some episodes not given by the others, while X is very full until episode 28, when it is broken off. R and S contain much the same episodes, though S is slightly fuller than R in the main body of the rite; Im seems mainly to follow S. The Pyramids occasionally enable us to control a reading. R, S, P and Im contain vignettes.

### The Order of the Episodes.

Episodes 1–8*a* are the ordinary Solar purification rites and need no annotation, as they have already been discussed by Dr. Blackman.

The fact that only R disagrees as to the position of 9, together with the ease with which a casual scribe could place so apparently introductory a note at the beginning of his text, is sufficient reason for maintaining it here[1].

It is tempting to follow R in putting 15 before 14 since the two passages concerning the striking of the father would then fall together. This is, however, the first of a number of cases where in one or more texts a couple of episodes have been reversed, and in view of the fact that the signs in this type of text face in the opposite direction to that found in normal texts it is quite easy to understand a hasty reader taking two episodes in the wrong order, especially in a text like R where this reverse direction of the signs is not rigidly maintained, since the direction is used to indicate the speaker in cases where a block of writing divides the actors in a scene. It must also be taken into account that by the time of R the meaning of the text was beginning to be lost and it is quite possible that the scribe may have forestalled us with the amendment.

Only R is in any doubt as to the order of the subsections in episode 25, and it destroys its own validity by placing 26 in the middle of the slaughter. This, combined with the order in episode 48, makes the positions of the subsections clear.

Episode 27 is interesting as the only episode given by all the texts. From this it seems likely that it was the most important.

Episodes 33–34 are reversed in Im, clearly wrongly, providing a plain example of the reversal of a couple of episodes referred to above.

Episode 35*a* (VI) has no definite position but probably belongs here or after 28.

The material for the order of episodes 36–51 is somewhat involved, but on the whole it appears to be sufficiently definite. I have inserted 39 between 38 and 40 because B and the combined Im 34 seem to demand it, despite the likelihood of the two *śḫ*-episodes coming together. It is of course possible that S 38 should come before S 36 since S 39–40 are clearly out of place, but this likelihood and the convenience of getting the Sa-meref episodes together are hardly enough—in the absence of any textual evidence—to upset the definite placing of so sound a text as S. The consensus of opinion as to the position of 41 must outweigh B.

The order of Im, aided by the obvious mistake in the position of P 21[2], indicates that P 22 should be moved, and the identity of P 17 and P 22 suggests that the latter is a misplaced doublet.

The worst confusion occurs in episodes 52–98 and the arrangement here is in the highest degree tentative. The suggestion in S of a censing immediately after the adornment is plausible, but P, B and L agree in placing 52 here, and R, while omitting 52, places

[1] See also below.

[2] This though supported by L 26–27 is clearly wrong and is in all likelihood an erroneous attempt to give an introduction to the second slaughter.

77, if not in B and L's place, at least in the same "censing series." The anointing comes next, and B is here clearly wrong as it places the "Address to the statue after anointing" during the process while P, whose order is adopted, has the general support of Pyr and L.

One would perhaps feel inclined to think that 60 belongs later in the "clothing series," but B and L's placing before 61 can hardly be altered in the absence of any definite evidence against it.

S and B differ over the position of 77 but L confirms B, and R's placing immediately after the censing supports it somewhat.

In P, P 42 and P 43 must be reversed and P 44–45–46 read in the reverse order, a mistake which is quite plain from the sense, despite L's support, and clearly one depending on the change of sign-direction referred to above. It is perhaps also possible that P 47–48 should, in reverse order, precede P 46, giving the order P 48–47–46–45–46, but there is no evidence to counterbalance the support given by L for their present position except their apparent lack of place as 103–104 and the plausibility of their coming after 100.

If this order is accepted the following scheme emerges:

| | | |
|---|---|---|
| I. | The statue purified ... ... ... ... | 1–8 |
| II. | The Sem sleeps ... ... ... ... ... | 9–11 |
| III. | The statue is discussed ... ... ... ... | 12–21 |
| IV. | Orders are given for the slaughter of an animal ... | 22–23 |
| V. | The slaughter takes place ... ... ... ... | 24–25 |
| VI. | Parts of the animal are put for the deceased ... ... | 25 (contd.) |
| VII. | His mouth is partially opened ... ... ... | 26–28 |
| VIII. | The son is heard calling his father ... ... ... | 29 |
| IX. | Messages are sent to the son by means of the mother ... | 30–33 |
| X. | The son comes and completes the opening of the mouth ... | 34–42 |
| XI. | He feeds the statue ... ... ... ... ... | 43–45 |
| XII. | He departs ... ... ... ... ... ... | 46 |
| XIII. | The statue is anointed ... ... ... ... | 52–59 |
| XIV. | It is clothed ... ... ... ... ... | 60–69 |
| XV. | It is censed ... ... ... ... ... | 70–76 |
| XVI. | It is fed ... ... ... ... ... | 77–98 |
| XVII. | It is borne away to its shrine (etc.) ... ... ... | 99–107 |

It will be noted that the second slaughter and its immediately following episodes are omitted. This is because I am inclined to think that episodes 47–51 (or even 52?) are an interpolated shorter version of episodes 25–46 (and if 52 be included, of the whole set of episodes 25–46 and 53–69). This may perhaps explain S's insertion of a censing before the anointing. For a similar duplication compare the Daily Ritual.

### Division of the Ritual.

Upon examination it becomes apparent that there are at least two elements in the rite—a ceremony for "opening the mouth" and certain additions from the dominant sun cult.

In the first place the identity of the purifications (episodes 1–8*a*) with those of the *Pr-dwȝ·t* ritual suggests that they do not belong here, but this would hardly justify their excision were it not supported by the fact that R—always, as we have seen, of dubious value for the order of episodes—is the only text which gives the instruction "The Imi-khent and the Kherheb go to the workshop" immediately after the title where one would *a priori*

expect it. In the other texts it comes before the "Sleeping Sem" episode. This placing raises a problem. The latter position would seem to be the more likely as the texts are four to one in its favour, and the fact that R's position makes "Entering to see him" apply to the purification strengthens this argument since the Imi-khent clearly does not see that part of the rite. If however 9 is accepted as the correct number of the episode there is still a difficulty, as S has already shown the Kherheb in the purification scenes. To throw over a good text like S is a counsel of despair, and the best solution appears to be that episode 9 marks the beginning of an original rite and that the Solar purifications are a later accretion—a solution which well suits certain facts to be discussed later.

Episodes 52–98 also seem to be a version of the Solar adornment, etc., rites known from the *Pr-dwȝ·t* and the Daily Ritual; so if episodes 1–8*a* are an accretion it is probable that these came in at the same time. The removal episodes refer to an Osiris-Set ritual and hence *may* not belong here (having been added because the dead man is Osiris); but this is immaterial to our point, since even in the event of its being original it is merely a tail-piece to the text. In this case, allowing for the duplication of the slaughter, etc., the rite proper is constituted by episodes 9–46.

This core itself has the appearance of falling into two parts at the introduction of the Sa-meref. In the first part the Sem appears to act as the son of the deceased while in the second the Sa-meref naturally does this. It is noteworthy that while I have been able to collect ceremonies which may be compared to ours from both Africa and Mesopotamia none of them is parallel to the whole rite, and while the African parallels are to be compared to the first section of our rite the Babylonian rite is parallel to the second.

### Parallels.

As noted above Frazer has already pointed out that this rite appears to be a search for the deceased's soul and its return. In the same section of his work he provides an interesting parallel to our ceremony of the Sleeping Sem[1]: "When a Dyak is dangerously ill, the medicine men say that his soul has escaped away, perhaps to the river; then they will wave a garment or a cloth about to imitate the casting of a net, signifying thereby that they are catching the soul like a fish in a net. Or they may give out that the soul has escaped into the jungle; and then they will rush out of the house to circumvent and secure it there. Or again they may allege that it has been carried away over seas to some foreign land; and they will play at paddling a boat to follow it across the great water. But more commonly their mode of treatment is as follows. A spear is set up in the middle of the verandah with a few leaves tied to it and the medicine boxes of the medicine men laid at its foot. Round this the doctors run at full speed, chanting the while, until one of them falls down and lies motionless. The bystanders cover him with a blanket, and wait while his spirit hies away after the errant soul and brings it back. Presently he comes to himself, stares vacantly about like a man awakening from sleep, and then rises, holding the soul in his clenched right hand. He then returns it to the patient through the crown of his head, while he mutters a spell."

In externals the parallel of the last ceremony with the Sleeping Sem seems to be complete and it would suit the formulae of the Egyptian rite exceedingly well. The first phrase—"I have seen my father in all his forms"—announces that the Sem has found the deceased, and the next—"Thy father does not betake himself to thee"—indicates that the soul is not to be obtained without a struggle. The fact that this latter phrase is spoken

[1] *Op. cit.*, p. 47.

by the Imiu-khent, who were only onlookers, presents some difficulty, and it is possible, in view of the early date of the text, that it is a question indicated by the tone of voice of the speaker only (Gard., *Eg. Gramm.*, § 491), for the next sentence—"The Entrapped-of-Face hath entrapped him"—would form a very good answer to such a question. The next sentences are not clear since they would come better from the Sem than the Imiu-khent, though they are not exactly suited to him. However, the phrase "She prevents his running....." would suit this suggested meaning very well whoever spoke it. It is quite possible that the translation of "Entrapped-of-Face" should be "Woven-of-Face" and refer to a woven trap—it is of course also possible that it reads "She-who-entraps-the-face."

Moret's suggestion that it is a symbolic resurrection seems ruled out of court by these words, of which he takes no account whatever. He also makes the mistake, already suggested by Maspero, of supposing that the cloak worn by the Sem is an ox-skin—a view for which there is no evidence whatsoever—and then identifying it with the Tekenu of other funerary rites. There is no ground for this identification, and indeed the rites in which the Tekenu occurs are so different from the Opening of the Mouth that it is difficult to see how any confusion could occur. I can only suppose that it arose from the extreme doubtfulness of the meaning of the ceremonies in which the Tekenu appears—a doubtfulness increased by the extremely inadequate nature of the publications of the important tomb of Rekhmara[1]. It is true that in the present copy of this tomb there is a superficial resemblance between the Tekenu on its bed and the Sleeping Sem, but this is hardly enough to give ground for M. Moret's theory since none of the other representations of the Tekenu bears out this resemblance. As a matter of fact this tomb is the best argument against this "development" theory, for if one ceremony developed out of the other why should they appear, each complete in itself, on the walls of the same tomb? The only possible answer to this is that the tomb is a transitional one, and this is ruled out of court by the fact that the Opening of the Mouth is mentioned fifteen dynasties before; in any case one would expect to find the ceremonies at least put together and not separated as they are in this tomb. The problem of the Tekenu is too complicated to be solved by any such sweeping assumption. Certain African ceremonies lead me to think that some of its difficulty arises from the fact that the Tekenu rites, as we have them, are an amalgamation of an aboriginal custom with an intrusive one as I am attempting to show to be the case in the Opening of the Mouth.

After this conversation the Sem assumes the *Ḳni*-garment and the Poles and starts to take measures for the recovery of the soul. This *Ḳni*-garment is an interesting dress which is of great antiquity and practically only occurs in texts of the same early date as ours. It has been discussed by Sethe, who quotes passages to show that it is a garment particularly connected with the king. There is also an interesting passage in the *Textes religieux* (not quoted by Sethe) in which it appears to be a kind of magical coat of protection. The passage in question occurs in *T. r.*, 63/2 (*Rec. trav.*, XXXI, 20) and is as follows: "I am wrapped in the *ḳni* and I am not caused to enter the place of slaughter." Is it possible that we have here the last relic of a king-magician's robe of office?

This portion of the text appears to deal with the making of a statue of the deceased as a habitation for the newly discovered soul. The speeches there would suit this meaning admirably. The Sem apparently commands the sculptors to make a statue of his father and they seem to try and prevent his doing the work for them. This passage is strong evidence for the view that the Opening of the Mouth was primarily performed on a statue

[1] And at that time the poor publication of the tomb of Menthuherkhepeshef.

and not on the mummy. It is usually assumed that it is of very little importance which was the original object of the rite since they were treated and indeed considered as equally "the deceased," *i.e.*, the statue was not a resting place for the soul of the dead man but actually the man himself. But this overlooks the fact that the statue was not the dead man until the Opening of the Mouth had been performed. If this rite actually is one for finding and restoring the soul of the deceased the sequence of development was probably as follows: there was a rite for curing a sick man whose soul was supposed to have wandered away, and when it became a question of a rite for bringing the "ghost" of a dead man back to the tomb the previous search-rite would obviously be used, and this would do well for dealing with the body only; but when it became a question of a statue something further had to be added, and what—anticipating a little—may be called the "African rite" began to take the form in which we have it. It is possible that what was added was a "craftsmen's guild rite" for the making of a statue, and the usual guild preservation of the craft secrets would then explain the prohibition of the son from taking part in the making of the statue. In view of Sethe's suggestion that the *Ḳnî*-garment, here assumed by the Sem, is essentially a royal attribute, it is interesting that he assumes it just when he ceases to be a witch doctor seeking the soul to become the deceased's son and hence—since the ritual was presumably originally royal—the new king.

The killing of the animals, now commanded and performed, ostensibly to procure the return of the Horus' Eye, occurs in the same form in the Coronation Ritual published by Sethe[1] and it is probable that it is a ritual slaughter—not a sacrifice in its full sense.

Mr. N. W. Thomas has described[2] some Nigerian ceremonies which may throw light upon the occurrence of the slaughter in our rite.

P. 169: "In Enugu Ivitana when a man dies they bring a mat and Raphia Leaves; the body is laid on a mat and covered with cloth; it is washed outside, and in the case of a man a fowl is killed and the blood put on his eyes and hand, and feathers in his hand; a goat is also killed and some meat roasted and put in Palm oil; this is put in the dead man's mouth and called 'throat meat'; they say 'Eat it and go to the man who killed you.' The corpse is said to move its mouth when the meat is put in, then the body is covered with cloth and tied up; for a rich man his grave is dug by four young men in his house or garden; other people are buried in the farm; two grave-diggers carry and two take the body down into the grave."

P. 166: "At Obu.....the body is first of all washed and the face marked with black to the end of the nose; the head is shaved just above the forehead and the hair put in the mat with the body; a cock and a ram sheep are sacrificed and the blood put upon the man's eyes; chalk is put round the eyes and eagles' wing feathers and parrots' tail feathers put in the hair. White cloth covers the body up to the throat; a he-goat is sacrificed; the heart is cut out and put upon the man's chest; the bodies of the victims are kept on the top of the wall until the ceremonies are finished. The plank upon which the body has been lying is put into the grave and a goat skin upon it; after the body has been put in women and small children are sent away; men take sand in their left hands, pass it round their heads, and throw it on the body saying 'If you know who killed you follow him.' The victims are eaten on the next day but a man may not eat the ram or the cock. Second burial takes place thirty-two days after the first; if another person dies they wait for his burial until second burial is over, the rites of which must be performed on Eke day."

[1] *Dramatische Texte*, II. The form of this slaughter would provide an interesting field ot study.

[2] *Some Ibo Burial Customs*, in *J.R.A.I.*, XLVII (1917).

P. 164 (Awka-district): "If a man who has made *Ajagija*-title dies they wash the body (*i.e.*, by the sisters and relatives by the same mother) as before in the court and split a fowl's beak; the blood is put upon the eyes of the dead man; this is said to open the dead man's eyes; a ram is killed with a knife and blood put upon the right hand of the dead man; this is said to be to praise his hand. The brothers provide the victims and kill them; if there are sons they call all the *Ajagija*-members in Awka before sacrificing, and each member provides two yards of cloth; the coffin is made by relatives and is made of *Oji*-wood, and is a rectangular box; the grave is dug in the sleeping room; all follow to the grave and afterwards wash; the friends lament for sixteen days; some food is thrown upon the grave for all alose to eat there." (alose = demi-god.)

P. 170: "In the Osili quarter they put a plank down in the house and take the body up; a mat is put outside and the body is taken out and covered with cloth; a fowl is taken and pointed at the dead person; blood is put upon the dead man's eye and right hand; they say 'Look at the fowl; take it and eat; take it and go away'; then a goat is brought and they say 'Look at the goat which we sacrificed to your Čï'; a piece of the throat is cut out and the meat put upon the ground; then four bamboo leaves are brought and the body of the goat put in; the piece of the throat is eventually put in the mouth of the dead man; no *Ozu*, *Eku* or *Čï* may go to the grave, nor may a man who has the same name."

Of these descriptions the most interesting from our point of view is the third, which actually speaks of the blood "opening the eyes" of the dead man, but the likeness of all of them to our rite is most striking. They suggest that the slaughter in the Egyptian ritual is to "give rest" to the soul, an explanation which would suit excellently. There is also a ceremony, described on p. 167 of the same article, which appears to be for bringing the soul to the simulacrum of the deceased and "giving it rest"—showing that, though this tribe had not as developed a rite for the return of the soul as the Sleeping Sem episodes, they had at least the germ of a ceremony comparable to episodes 9–26.

"If a man dies far away and his body cannot be recovered they take a palm leaf and a chicken and go to the bad bush; holding the palm leaf in the hand, they kill the chicken, throw it into the bad bush, knock the leaf on the ground, take it on the left arm and go back, saying, 'Dead man follow me home'; if it is a man who has died they put the leaf outside the yam store; if it is a woman they leave it outside the door; in the case of a man a goat and cock are sacrificed, and blood is put upon the leaf exactly as it would be upon the dead man's eyes, the leaf is wrapped in cloth as if for a body; in the case of a woman the goat's heart is put upon a spot to represent the chest."

The arrangement after the slaughter is interesting and somewhat mysterious. There are first three "opening" episodes, then the entrance of the Sa-meref and then again more "opening" episodes. It is difficult to suggest any explanation of this since there is no doubt that the order given here was fixed by the Eighteenth Dynasty, for all the texts give these episodes and, with two unimportant variations, in the same order[1]. Episode 29 is interesting, and I can only suppose that it represents the son hunting for his father and so gives the signal for calling the Sa-meref. 32 is not so easy to explain since, though it seems out of place, it is given in this place by all the texts. On the face of it the simplest way out would be to assume that it was a doublet of 18, which has already been doubled in B. But the previous doublet in B seems to have been a mistake

[1] It seems impossible that the touching of the mouth with the foreleg has attracted the other two from their proper place since in that case the other "Touching" episodes should have come too.

arising from the fact that 31 and 19 are the same, and this would hardly give rise to the insertion of 32 where it plainly makes nonsense. I am inclined to take my courage in both hands here and to excise 19, which seems somewhat out of place (and with it 19*a*), and also 32, which is plainly misplaced. There are no real grounds beyond their unsuitability, but something is wrong and this seems the only way out. It is interesting that with the "opening" episodes the unanimity of the texts comes to an end and they neither give the same episodes nor when they do are they in the same order.

It is with the "touching" episodes that the Babylonian rite comes into question. Mr. Sidney Smith has summarized the text he published as follows[1]: "A new statue of a god, or a statue considerably restored, has to be consecrated and installed in its shrine. The priests proceed to the workshop where the statue awaits the finishing touches. The first 'washing of the mouth' is performed in the workshop. The god is then informed that he is to join the divine company of the father of the gods, Ea, and he is led out of the workshop into the garden on the river-bank, accompanied by a ram, to symbolize his emergence in power from 'the grove.' This first procession, by torchlight, takes place at night. After the ram has been flayed, and certain offerings made to Ea, the second 'washing of the mouth' is performed. The god is then seated on a reed mat, and everything necessary to complete the work is put ready. It is not easy to suggest the use of all the objects named; various oils and fats were obviously intended to be rubbed over the surface, but the many kinds of stone mentioned were almost certainly for inlay, perhaps not only in the eyes, but also in the mouth, or as a beard. While the carpenters and masons are at work, the priests are engaged in making offerings to the gods, in the order (1) The Nine Great Gods, (2) The Nine Minor Deities, the gods of various kinds of craftsmen, including the god whose statue is being consecrated, (3) Certain planets and fixed stars, divided into groups in an apparently haphazard kind of way. After each set of offerings the 'washing of the mouth' is performed, presumably because some particular piece of work is thereby concluded. The night has by this time passed, and at dawn offerings of cereals, fruits, and fat, followed by the sacrifice of the ram, lead to the announcement that the image is perfected. All those who have been engaged in work on the statue now withdraw to the protection of their particular deities, and then the priest himself 'opens the eye' of the statue apparently with a twig of tamarisk. The statue is then invested with a divine headdress and a processional throne as a proof that the statue is now deified; the god, now 'in heaven,' will no longer be called upon to stand, he is free from the indignities of the workshop. The procession now leaves the garden, passes along the street to the temple to the accompaniment of specified incantations of a magical character. After the proper offerings have been made to the gate of the temple, the god is installed in his shrine, in such a position as will bring him into close contact with his 'Father,' Ea, and he is arrayed in the proper vestments; the object of the ceremony is thus finally achieved, according to the priest's first announcement." The text given by Blackman is preceded by a more complicated purification which he summarizes as follows:

I. "Honey, butter, oils, and precious stones were first collected by the priest. The first act of consecration was the binding of strands of white, red, and bluish wool about the statue's neck. The priest, reciting a formula, then closed the door of the room or building in which this part of the rite was performed. He then censed the statue, offered it a lighted torch and sprinkled it with holy water. Then he swept the floor and sprinkled

[1] *Op. cit.*, p. 38.

it also with holy water. He again burnt incense, put cypress- and cedar-wood in the censer, poured a libation of wine, and scattered meal on the holy-water bowl—each action accompanied by a thrice repeated formula.

"Next came a formula specially connected with the holy-water bowl. The priest made ready a cult-installation before it, offered a lamb, burnt incense and poured a libation. Then standing before it, he recited a formula apparently to identify its contents with the Tigris.

II. "The priest went to some temple or shrine on the river bank and, having set up a reed altar, looked at the river.

III. "He then returned to the House of the Craftsmen where the statue was fashioned, and once more swept the ground and sprinkled it with holy water. He then burnt incense and poured a libation of wine to Ea, Marduk and the statue. The priest then washed and opened the mouth of the statue, censed the statue and sprinkled it with holy water.

"The episode ends with the threefold repetition of a formula expressing the joy of Ea and the god whose statue was being consecrated, in one another's presence. The priest then knelt down and grasped the hands of the statue."

In *Beiträge zur Assyriologie*, I, 267ff. there is given a tablet describing the restoration of the cult of Šamaš by king Nabupaliddins which contains a note of the dedication of a new statue of the god: "..... he made the statue of Šamaš, the Great Lord, out of pure gold and shining crystal (?) truly (?) (lasting ?). With the purification of Ea and Marduk before Šamaš in E-kar-saginna on the bank of the Euphrates, washed he its mouth and set up his habitation for him. He offered offerings to his heart's desire, being powerful offering bulls and pure fat lambs, and he poured over the locks with honey, wine, and hyssop."

The purification ceremonies seem merely to be those common to all Babylonian rites. Jastrow has described[1] the following cleansing rite: "The exorcising priests wore special garments—often in imitation of the gods in whose name they acted. Pieces of flesh and a mixture of dates, flour, honey, and butter and other viands were offered to the demons as bribes that they might thus be made more kindly disposed. The rites were generally performed at sunrise or shortly before—though occasionally also at night. The place where they were to be performed was to be swept clean, a table and often several tables were set, whereon the objects for the sacrifice were to be arranged. Torches were lit, libations of wine were poured out and various other details are prescribed, some of which are not at all clear. In connexion with each separate act of preparation a formula or prayer was recited."

Further on[2] he describes the following ceremony: "After a king's recovery from illness the directions are specific that in addition to the ceremonies around the king's bed the palace was to be purified by passing through it with torches and censers. In the palace court seven tables must be spread to the seven chief deities, with offerings of various kinds of dates, meal, oil, honey, butter, milk with some sweet drink. Seven censers with seven vessels of wine were furthermore to be provided and finally a lamb for sacrifice. Elsewhere we are told that for the purification of a house that had become in any way unclean the rooms, the threshold, the court roof, beams and windows must be touched with asphalt, gypsum, oil, honey, butter or holy water. Similar ceremonies were enacted

[1] *Aspects of Religious Belief and Practice in Babylonia and Assyria*, p. 316.

[2] P. 318.

to purify the image of a god before it could be put into use or after it had become unclean."

If we assume—as we are entitled to do—that these ceremonies have no particular bearing on our rite but were merely used for the purification necessary in it, the essential part appears to be the ceremony on the river bank, and it is this which bears some resemblance to the Egyptian Ceremony. The "touching" of the mouth does not occur, but there is quite clearly a touching of the eyes to "open" them, and in Blackman's (earlier) text the washing of the mouth is always associated with the "opening." It is further a distinct coincidence that the two rites should turn on the same phrase "Opening the Mouth" and it seems hard to resist the conclusion that there is some connexion however slight. Dr. Blackman also pointed out in his article the likeness between the purificatory episodes of the two texts, a likeness which is only more striking on further investigation.

### The bearing of the parallels on the rite.

In working on the Egyptian rite I was at first inclined to leave the Babylonian ritual out of account and concentrate on the other parallels which seemed to cover the early part of our ceremony, but on consideration a possibly better explanation suggested itself. This was that the apparent break in the rite was a real one and that the two sections could be discussed separately. Under these circumstances the first section would be aboriginally African and the second Semitic. The Sun-cult, which shows many signs of Semitic origin, has, as we have seen, influenced our rite considerably and a further separation of Solar material is *a priori* possible. It is by no means improbable that by the time the Sun-cult entered Egypt it already had a developed rite for inducing a soul to take up its habitation in a statue, and that when it conflicted with an already existent Egyptian rite the two were combined in the typically Egyptian fashion. In this case the purification and adornment episodes—which, as Dr. Blackman has pointed out, are grouped round the "core" very similarly in both rites—may have come in attached to the other rite and not have been simply tacked on to a "core" of episodes 9–46. That the aboriginal Egypto-African rite became embedded in the incoming rite is not difficult to understand since the statue needed purification before it was a fit place for the soul to inhabit; and when the two ceremonies were still understood—for it is the essence of this argument that they were combined because they were for the same purpose—the purificatory rite would have to come first. It is perhaps significant that in the (Solar) Pyramid Texts the purificatory and adornment rites appear together with the touching of the mouth with the various implements, but not the "Sleeping Sem" or the Slaughter. These texts appear to come before the combination was effected just as they come before the Osirianization of the Afterworld. This combination would explain the fact that if the Egyptian rite is connected with the Babylonian it has gained a totally alien funerary character, since in Mesopotamia the rite had only to do with the dedication of a statue of a god. On this explanation it would have obtained its funerary character from the rite with which it was amalgamated since, with the Egyptian outlook, the funerary element would naturally be dominant. It is worth noting that in Egypt the gods' statues, etc. also had their mouths opened, and this may perhaps date from the time of the introduction of the Semitic rite and not be, as would at first seem likely, a part of the general extension of Osiris' funerary character—and hence ceremonies—to the other gods.

### Conclusions.

If the rite is looked at in the light of the considerations stated above it appears to have several sections which may be stated diagrammatically as follows:

I. Solar Purification.

II. African Rites for the return of the Soul, etc.

- (*a*) Seeking the Soul.
- (*b*) Preparing a Habitation for it.
- (*c*) Giving it Rest.

III. Solar (Semitic) Opening the Mouth rite.

IV. Solar Adornment, etc., rites.

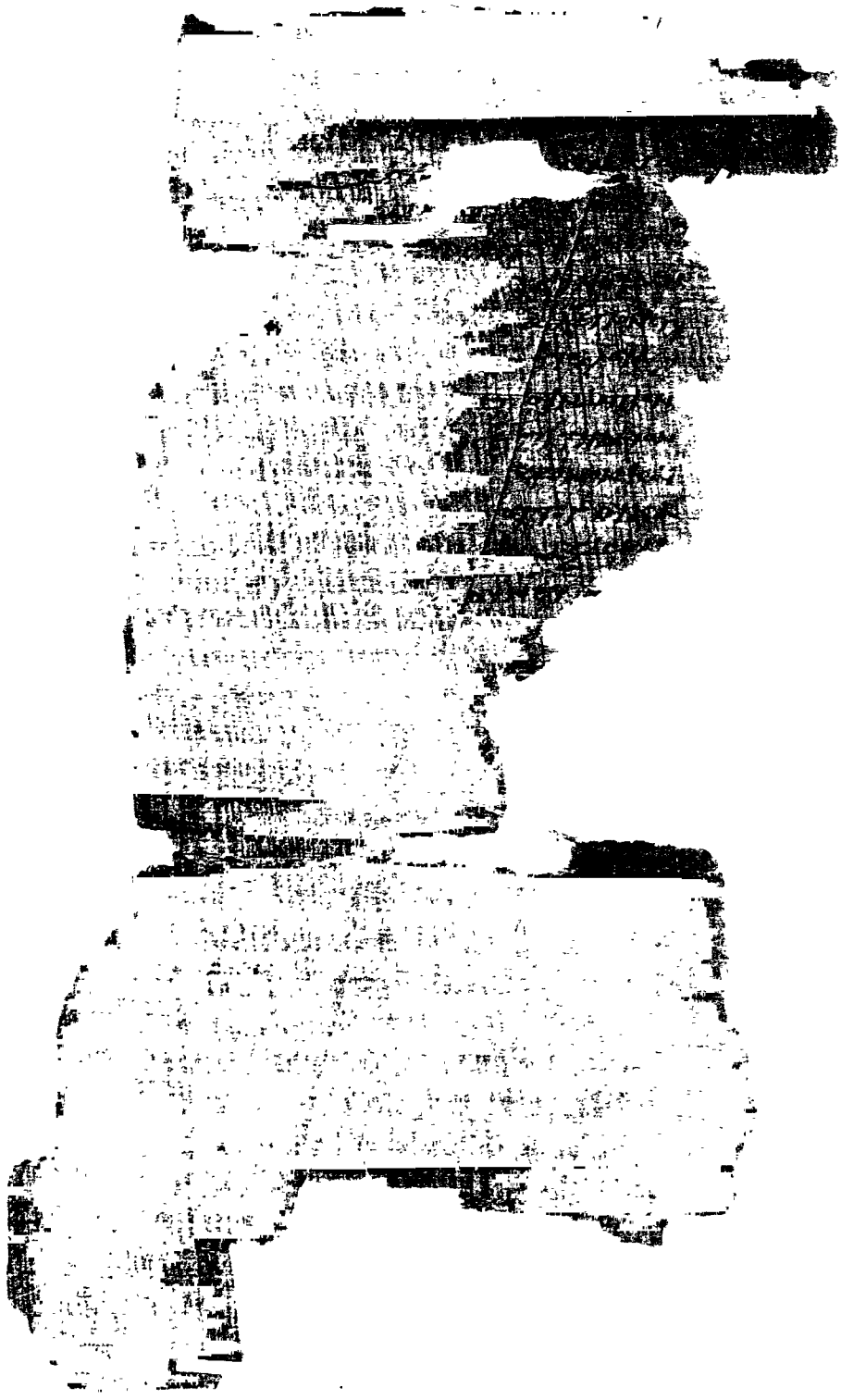
| | | R | S | B | Im | P | X | L | Pyr |
|---|---|---|---|---|---|---|---|---|---|
| *a* | Title ... ... ... ... ... | *a* | *a* | *a* | *a* | | *a* | | |
| I | Note of Kherheb and Sem wearing the *ḫnî*, etc. ... | | | | | | 1*a* | | |
| 1 | Placing on the sand ... ... ... ... | 1 | 1 | 1 | 1 | | 1 | | |
| 2 | Censing ... ... ... ... ... | | | 2 | | | 2 | | |
| 3 | Purification with *nms-t*-vases ... ... ... | 2 | 2 | 3 | 3 | | 3 | | 10*a* |
| 4 | Purification with *dšr-t*-vases ... ... ... | 3 | 3 | 4 | 4 | | 4 | | 10*b* |
| II (4*a*) | Purification with 1 *swr*-vase ... ... ... | | | | | | | | 10*c* |
| 5 | Purification with Upper Egyptian natron ... | 4 | 4 | 5 | 5 | | 5 | | 26*a–f* |
| 6 | Purification with Lower Egyptian natron ... | 5 | 5 | 6 | 6 | | 6 | | 27*a–c* |
| 7 | Purification with unburnt incense ... ... | 6 | 6 | 7 | 7 | | 7 | | 28*a*–29*c* |
| 8 | Censing ... ... ... ... ... | 7 | 7 | 8 | 2 | | 8 | | |
| III (8*a*) | Second censing ... ... ... ... | | | | 8 | | | | |
| 9 | Entrance of Imi-khent and Kherheb into the workshop ... ... ... ... | *b*(4*a*) | 8 | 9 | 9 | | 9 | | |
| 10 | Sleeping and awakening of the Sem ... ... | 8 | 9 | 10 | 10 | | 10 | | |
| 11 | Conversation between Sem and Imiu-khent. (I have seen my father, etc.) ... ... ... | 9 | 10 | 11 | 11 | | 11 | | |
| 12 | The Sem receives the *ḫnî*-garment and poles ... | | 11 | 12 | 12 | | 12 | | |
| 13 | Conversation between Sem and sculptors. (Make for me my father, etc.) ... ... ... | 10 | 12 | 13 | 13 | | 13 | | |
| 14 | Further conversation between the Sem and sculptors. (Do not strike thy father, etc.) ... | 12 | 13 | 14 | 14 | | 14 | | |
| 15 | The Sem presses the statue's mouth with his finger | 11 | 14 | 15 | 15 | | 15 | | |
| 16 | Conversation between Sem and sculptors. (Do not strike my (?) father, etc.) ... ... ... | 13 | 15 | 16 | 16 | | 16 | | |
| 17 | The Sem stands before the statue and the butcher (*sic*!) behind ... ... ... ... | | | 17 | | | 17 | | |
| 18 | The Sem speaks to the butcher. (I am Horus, O Set, and I do not permit thee to brighten, etc.) | 14 | 16 | 18 | 17 | | 18 | | |
| 19 | The Imiu-khent order Isis to go to Horus ... | 15 | 17 | 19 | 18 | | 19 | 1 | |
| IV (19*a*) | The Sem to the sculptors: I am Horus, O Set, and I do not permit thee to brighten my father's head ... ... ... ... | | | 20 | | | | | |
| 20 | The Kherheb orders the Sem to go and see his father ... ... ... ... ... | 16 | 18 | | 19 | | 20 | 2 | |
| 21 | The Sem takes off the *Ḫnî*, etc., and assumes the leopard skin ... ... ... ... ... | 17 | 19 | | | | 21 | 3 | |
| 22 | The Sem orders the Kherheb to "rescue the eye" | 18 | 20 | | 20 | | 22 | 4 | |
| 23 | The Kherheb says "I have cut out (?) the eye," etc. | 19 | 21 | | 21 | | 23 | 5 | |
| 24 | The Smer and the Kherheb go outside ... | | 22 | | | | | | |
| 25 | 1st Sacrifice: whole texts ... ... ... | | | | 22 | | | | |
| | (*a*) 1, 2, 3, 4. (See below for meaning of numbers) | | | 21 | | 1 | 24 | 6 | |
| | (*b*) 3 ... ... ... ... ... | 20 | | | | | | | |
| | (*c*) 5 ... ... ... ... ... | 21 | 23 | 22 | | 2 | 25 | 7 | |
| | (*d*) 6, 7 ... ... ... ... ... | | 24 | 23 | | 3 | 26 | 8 | |
| | (*e*) 7 ... ... ... ... ... | 22 | | | | | | | |
| | (*f*) 1, 2, 4, 6 ... ... ... ... | 24 | | | | | | | |

| | | R | S | B | Im | P | X | L | Pyr |
|---|---|---|---|---|---|---|---|---|---|
| 26 | Opening the mouth with the foreleg ... ... | 23 | 25 | 24 | 23 | 4 | 27 | 9 | 11–12 |
| 27 | Opening the mouth with the *ntrtỉ* ... ... | 26 | 26 | 25 | 24 | 5 | 28 | 10 | 13–14 |
| 28 | Opening the mouth with the *wr-ḥkɜw* ... | 25 | 27 | 26 | 25 | 6 | 29 | 11 | |
| 29 | Imi-is stands behind "him" saying "Father, father" four times ... ... ... | 27 | 28 | 27 | | 7 | | 12 | |
| 30 | "Announce him to his mother," etc. ... ... | 28 | 29 | 28 | 26 | 8 | | 13 | |
| 31 | "O Isis, go to Horus," etc. ... .. ... | 29 | 30 | 29 | 27 | 9 | | 14 | |
| 32 | "I am Horus and I do not permit thee to brighten," etc. ... ... ... ... | 30 | 31 | 30 | 28 | 10 | | 15 | |
| 33 | Going out to find the Sa-meref ... ... | | 32 | 31 | 30 | } 11 { | | 16 | |
| 34 | Bringing in the Sa-meref: "I bring in," etc. ... | 31 | 33 | 32 | 29 | | | 17 | |
| V (34*a*) | "I bring in," etc. ... ... ... ... | | | | | 12 | | | |
| 35 | Opening the mouth with the *ḏdtf* ... ... | 32 | 34 | 33 | 31 | 13 | | 18 | |
| VI (35*a*) | Opening the mouth with the divine Upper and Lower Egyptian *bỉɜ* ... ... ... | | | | | | | | 30*b* |
| 36 | Opening the mouth with the finger ... ... | 33 | 35 | 34 | 32 | 14 | | 19 | |
| 36*a* | Repetition of portion of above ... ... | 41 | | | | | | | |
| 37 | Opening the mouth and eyes with an unnamed instrument ... ... ... ... | | | | | 15 | | | |
| VII (37*a*) | Small vignette of priest facing statue ... ... | | | | 33 | | | | |
| 38 | Cleaning and "founding" the mouth ... ... | | 36 | | } 34 { | | | 20 | |
| VIII (38*a*) | Sem takes the *nmś* and cleans the mouth and eyes | | | 35 | | | | | |
| 39 | Smer ordered to *ỉr b* his father ... ... | | 37 | 36 | | 16 | | | |
| IX (38–39*a*) | Combination of 38 and 39 ... ... ... | | | | | | | 21 | |
| 40 | The Sa-meref ordered to clean his father's mouth | | 38 | | | | | | |
| 41 | Taking the 4 *ꜥb·t* ... ... ... ... | 34 | 41 | 41 | 35 | 17 | | 22 | |
| 41*a* | Repetition of above ... ... ... ... | | | | | 22 | | | |
| 42 | Using the *pšnkf* ... ... ... ... | 43 | | 38 | } 36 { | 18 | | 23 | |
| 43 | Presenting grapes ... ... ... ... | 44 | | 39 | | 19 | | 24 | 30*a* |
| X (42–43*a*) | Combination of above two ... ... ... | | | | | | | | |
| 44 | Presenting a feather ... ... ... | 42 | | 40 | 37 | 20 | | 25 | |
| XI (44*a*) | The Sem orders the Kherheb to "rescue the Eye" | | | | | } 21 { | | 26 | |
| XII (44*b*) | The Kherheb says "I have cut out(?) the Eye". . | | | | | | | 27 | |
| 45 | Offering water ... ... ... ... | 45 | | 37 | } 38 { | 23 | | 28 | |
| 46 | The Sa-meref goes, given valediction by a priest | | 42 | 42 | | 24 | | 29 | |
| 47 | | | | | | | | 30 | |
| XIII (45–47*a*) | Combination of above three ... ... ... | | | | | | | | |
| 48 | 2nd Sacrifice: Whole text ... ... ... | | | {43 44} | 39 | 25 | | 31 | |
| | (*a*) 1, 3 ... ... ... ... ... | 35 | 39 | | | | | | |
| | (*b*) 6 ... ... ... ... ... | 36 | 40 | | | | | | |
| 49 | Opening the mouth with the foreleg ... ... | 37 | 43 | | 40 | 26 | | 32 | |
| 50 | Opening the mouth with the *dwɜ-wr* and *dwn-ꜥ*... | | 44 | | | | | | |
| 51 | Opening the mouth with the *dwn-ꜥ* and *dwɜ-wr*... | 38 | 45 | 45 | | 27 | | 33 | 1329*c* |
| 52 | Adorning with the *nmś* ... ... ... | | 47 | 46 | | 28 | | 34 | |
| 53 | Anointing ... ... ... ... ... | | 48 | 52 | | 29 | | 35 | |
| 54 | List of oils ... ... ... ... ... | | | | | 30 | | 36 | {50*a*–51*c* & 54*a* |
| 55 | Hymn to the oil ... ... .. ... | | | | | 31 | | | 52*a*–53*b* |
| 56 | An anointing address to the statue .. ... | | | | | 32 | | | |
| 57 | An anointing episode ... ... ... | | | 54 | | | | | |
| 58 | Green eye-paint ... ... ... ... | | | 55 | | 33 | | 37 | 54*a*–55*b* |
| 59 | Address to the statue after anointing ... ... | | | 53 | | 34 | | 38 | |
| 60 | *Sỉɜ*-cloth ... ... ... ... ... | | | 47 | | | | 41 | |
| 61 | Taking the clothing ... ... ... ... | 40 | 49 | 48 | | 35 | | 42 | |
| 62 | Formula for adorning ... ... ... | 39 | 50 | 49 | | 36 | | 43 | 1612–1614 |
| 63 | Giving fresh (or "green"?) clothing ... ... | | | 50 | | | | 44 | |
| 64 | *'Ins*-cloth ... ... ... ... ... | | | 51 | | | | 45 | |
| 65 | *'Idmỉ*-cloth ... ... ... ... ... | | | | | | | 46 | |
| 66 | *Wsḫ*-collar ... ... ... ... ... | | | | | | | 47 | |
| 67 | *ɜmś*-sceptre ... ... ... ... | | 51 | 56 | | | | 48 | |
| 68 | *Ḥḏ*-club ... ... ... ... ... | | 52 | 57 | | | | 49 | |
| 69 | Giving clothing ... ... ... ... | | | 58 | | | | 50 | |

| | | R | S | B | Im | P | X | L | Pyr |
|---|---|---|---|---|---|---|---|---|---|
| 70 | The Sem receives the censer ... ... ... | | | 59 | | | | 39 | |
| 71 | Censing ... ... ... ... ... | | 54 | 60 | | | | 40 | |
| 72 | Censing the Uraeus ... ... ... ... | 47 | 55 | 61 | | | | 51 | |
| 73 | Censing 31 gods ... ... ... ... | | | 62 | | | | 52 | |
| 74 | Address to gods and goddesses ... ... | | | 63 | | | | 53 | |
| 75 | Purification with incense ... ... ... | | | 64 | | | | 54 | |
| 76 | Purification with incense ... ... ... | 46 | 46 | 65 | | | | 55 | |
| 77 | The Sem performs the "greeting" with the *nms·t*-vases ... ... ... ... ... | | | 66 | | | | 56 | |
| 78 | The Sem pours water ... ... ... | | | 67 | | | | | |
| 79 | Censing ... ... ... ... ... | | | 68 | | | | | |
| 80 | Taking the offering of *wꜥḥ* ... ... ... | 48 | 53 | 69 | | | | 58 | |
| 81 | Giving a foreleg to the *kꜣ* of *N* ... ... | | | | | | | 59 | |
| 82 | Performing the purifications of the *Pr-dwꜣ·t* ... | | | | | | | 60 | |
| 83 | An offering formula ... ... ... ... | | | | | 37 | | | |
| 84 | An offering formula ... ... ... ... | | | | | 38 | | | |
| 85 | An offering formula ... ... ... ... | | | | | 39 | | | |
| 86 | An offering formula ... ... ... ... | | | 70 | | | | | |
| 87 | An offering formula ... ... ... ... | | | 71 | | | | 61 | |
| 88 | A purification formula ... ... ... | | | 72 | | | | 62 | |
| 89 | Consecrating offerings ... ... ... | 49 | | | | 40 | | 63 | |
| 90 | Libation ... ... ... ... ... | | | | | 41 | | 64 | 16*a–d* |
| 91 | Offering formula ... ... ... ... | | | 73 | | | | | |
| 92 | Slaughter of animals ... ... ... | | | 74 | | | | 57 | |
| 93 | Libation formula ... ... ... ... | | | 75 | | | | | |
| 94 | Offering formula ... ... ... ... | | | 76 | | | | 65 | |
| 95 | Offering formula ... ... ... ... | | | 77 | | | | 66 | |
| 96 | Offering formula ... ... ... ... | | | | | | | 67 | |
| 97 | Hymn to Rēꜥ ... ... ... ... | | | 78 | | | | 68 | |
| 98 | Making offering and opening the mouth ... | | | 79 | | | | 69 | |
| 99 | Children of Horus ordered to bear their "father" Osiris ... ... ... ... ... | 50 | | | | 43 | | 71 | |
| 100 | Speech to Children of Horus and greeting to god | 51 | | 80 | | 42 | | 70 | |
| 101 | Putting the god in the *ḥḏ*-shrine ... ... | 52 | | | | 46 | | 74 | |
| 102 | Closing the doors (1) ... ... ... | {53} | | | | 45 | | 73 | |
| 102*a* | Closing the doors (2) ... ... ... | | | | | 44 | | 72 | |
| 103 | Address to Thoth about rescuing the eye ... | 54 | | | | 47 | | 75 | |
| 104 | Raised are the beauties of this god ... ... | | | | | 48 | | 76 | |
| 105 | A censing ... ... ... ... ... | | | 81 | | | | | |
| 106 | List of officiants ... ... ... ... | | | | | 49 | | | |
| 107 | A general "Opening of the Mouth" formula ... | | | | | 50 | | | |

Note on the Sacrifice:

(1) Giving the sign. (2) Cutting out the heart and foreleg. (3) The speech of the Great Weeper. (4) Beheading the goat and goose. (5) The Kherheb says: "I grasp them for thee," etc. (6) Giving the priests the foreleg and heart to lay before the statue. (7) "Take to the pupil (?) of the Horus-Eye," etc.



Papyrus of Dio Chrysostom. 4th cent.
British Museum Pap. 2823, fr. 1, recto.
*Scale nearly* $\frac{1}{1}$.

# PAPYRI OF DIO CHRYSOSTOM AND MENANDER

By H. J. M. MILNE

With Plate xxviii.

## 1. Dio Chrysostom.

The text of Dio Chrysostom has descended to us in none too good a condition, the result, who knows?, of too much thumbing in antiquity. An early witness, standing outside the main tradition, is therefore doubly welcome. Indeed it seems surprising, when we consider the widespread and lasting popularity of Dio from his own day in the first century till the close of ancient culture, that we have had to wait so long for such first-hand evidence as is now provided by Pap. 2823 in the British Museum (Pl. xxviii).

This papyrus was acquired in 1926 and is of unknown provenance. It now consists of nine fragments, the debris of at least five distinct leaves from a fourth century codex. Originally the leaf would have measured perhaps 30 cm. × 18 cm. with about 43 lines to the page, and the largest fragment still measures 20·5 cm. × 11 cm. A diagonal crease, avoided by the scribe, runs across fr. 1. The script, of medium size, slopes to the left. Marks of elision are frequent and a fair number of breathings occur, occasionally also accents (*e.g.*, τί in l. 39), but no signs of punctuation either by dots or by spacing. Iota adscript is sometimes written, sometimes omitted, and initial iota and upsilon as a rule receive a diaeresis. A curious curved line runs under οπρ of δουλοπρεπεῖς in l. 13, performing apparently the function of a hyphen. Frs. 1 and 2 at least must belong to the first half of a quire, to judge from the text, which runs from verso to recto. For the other fragments we have no means of knowing whether verso precedes recto or the other way about, and whether they belong to the first or second half of a quire. It is just possible, however, owing to the proximate position of worm-holes, that fr. 1 was superposed on fr. 3, recto to recto, in which case fr. 3 belongs to the second half of the quire. This entails that fr. 5 should also belong there, for the worm-holes in frs. 3 and 5 coincide absolutely, verso to recto, and this again fixes fr. 5 as belonging to the foot of a page.

At least three different works are represented by the fragments, the two extant orations περὶ ἐλευθερίας καὶ δουλείας (nos. xiv and xv in reverse order) and a lost work or works. The nature of the new fragments is difficult to determine; frs. 3 and 4 seem strictly philosophic while fr. 5 appears to be attacking philosophers (*cf.* l. 140) and therefore to belong to Dio's early and unregenerate period. The codex could hardly have contained more than a selection from the voluminous works of the Golden-Mouthed, perhaps a sort of *Parva Moralia*; but on this we can only speculate. In the extant MSS., at all events, the works dispose themselves in groups of similar nature.

A word must now be said of the relation between the papyrus and the traditional text. The MSS. of Dio, as scholars now agree, fall into three main groups in accordance with the classification of J. von Arnim, whose edition (2 vols., 1893, 1896; the speeches are in vol. 2, pp. 227, 232) is here followed. Only two groups concern our purpose, and of the first, the

*meliores*, only its sixteenth century representative, the codex M(eermannianus). Of the second group, the *deteriores*, the eleventh century U(rbinas) and its fourteenth century Paris cousin known as B need alone be mentioned. One outstanding distinction between the two groups lies in the order of the speeches, but in this our papyrus differs from both in the one place where it can be checked, namely in the order of the orations xiv and xv. As would be expected from so early a witness several of its readings are obviously superior to all MS. tradition, *e.g.*, *ἀπ' αὐτοῦ* for *αὐτοῦ* in l. 24, *ἤ* in l. 25 (omitt. MSS.), *πλὴν τοῦτο γ'* in l. 46, *εἶναι* in l. 61. Others less certainly so, as *πάνυ καλῶς* in l. 3, *δούλους ὄντας* in l. 45. Its good character shows itself in the support it often gives to the better reading, as *καλῶς* in l. 31, *φέρε δή* in l. 56, *σαφές* in l. 58. Strange to say, however, it shares the rather obvious corruption of all the MSS. in l. 10, *ὥσπερ ὁ ἐλεύθερος*, and is not to be trusted in the matter of particles and small words. Rightly or wrongly no countenance is given to those editors who would wield the pruning knife as Herwerden does in ll. 42, 43 and Wegehaupt in l. 56, nor does the counter-tendency, *e.g.*, the insertion of *ἵππον* by Reiske in l. 21, receive any encouragement. On the whole the best MS. tradition is vindicated once again and violent changes must still be deprecated.

Fr. 1 verso. 11 lines missing?

Or. xv, 28. *μέρους κατωκισαν παλ[ιν] εἰς Μ[εσσηνην και ταυτα ου]*
*δεις φησιν αδικως πεποιηκέ[ναι τους Θηβαιους αλλα]*
*πανυ καλως και δικαιως ωσ[τε ειπερ ουτος ο τροπος ου]*
*δικαιος εστι της κτησεως ἐξ ο[υ παντες οι λοιποι την]*
*αρχ[ην εχου]σι κινδυνευει μ[ηδε αλλος μηδεις ει]*
*ναι μηδε τῳ οντι κατ' αληθέ[ιαν δουλος λεγεσθαι αλ]*
*λα μη ουχ ουτως η λέγ[ομενος ἐξ αρχης ο δουλος υπερ ο]*
*του αργυριον τις του σωμά[τος κατεβαλεν η ος αν εκ δου]*
*λων λεγομενων η γεγονώ[ς ωσπερ οι πολλοι νομιζου]*
*σι πολυ δε μαλλον ωσπερ ο ελε[υθερος και δουλοπρε]*
*πης των μεν γαρ λεγομενων δ[ουλων πολλους ομολο]*
*γησομεν δηπου ειναι ελευθερ[ιους των δε γε ελευ]*
*θερων πολλους πανυ δουλοπρεπέ[ις εστι δε ως περι τους]*
*γενναιους και τους ευγενεις τού[τους γαρ οι ἐξ αρχης]*
*[ωνο]μασαν τους ευ γεγονοτας πρό[ς αρετην ουδεν πολυ]*
*[πραγμο]νουντες εκ τινων εισιν ὕ[στερον δε οι εκ των]*
*[παλαι π]λουσιων και των ενδοξων [υπο τινων ευγενεις]*
*[εκληθησαν] τού[του δε σημειον σά[φεστατον επι γαρ]*
*[των αλεκτρ]υονων και των ιππων [και των κυνων διε]*
*[μεινε το ον]ρμα ωσπερ και επι τών [ανθρωπων ειχε το]*
*[παλαιον ο] γαρ θεασαμενος θυμο[ειδη και γαυρον και]*
*προς δρ[ομον ε]υ εχοντα ου πυθομ[ενος ειτε ἐξ Αρκαδι]*
*ας ο πατηρ αυτου ετυχεν ειτ' εκ Μ[ηδιας ειτε Θεττα]*
*λος φησιν ευγενη τον ἵππον απ αυτ[ου κρινων ομοιως]*

3. *παγκαλως* MSS. 10. So MSS. *ὥσπερ ἀνελεύθερος* corrigit Reiske. 17. *παλαιοπλούτων* suggested by v. Arnim, needlessly. 21. *ἵππον* after *γάρ* inserted by Reiske, perhaps needlessly. 23. *ὧν* after *ἔτυχεν* MSS. 24. *ἀπ'* omittunt MSS. *αὐτοῦ* then changed into *αὐτόν* by editors.

δ' ὁς αν εμπειρος η⟨ι⟩ κυνων ε̣αν κυνα ι̣[δη ταχειαν και]
προθυμον και συνετην περι το ϊχνος̣ [ουδεν επιζη]
τει ποτερον εκ Καρων το γενος η Λακαινα̣ [η αλλαχοθεν]
ποθεν αλλα φησι γενναιαν την κυνα το α[υτο δε τουτο]
επ αλεκτρυονος και των αλλων ζωιων ουκο̣ν̣[ν δηλον οτι]
επ' ανθρωπων ουτ̣ω̣ς̣ [εχοι] αν ωστ' ὁς α̣ν̣ π̣ρος [αρετην]
κ̣α̣λως \ἠι/ [γεγονως τουτον π]ροσηκει γενναι[ον λεγε]
[σθαι καν μηδεις επιστηται] τους γονεας αυ[του

Fr. 1 recto. 11 lines missing?

[φεροντας τα ονοματα αλλα] τους πολλους τ̣[ων ανοη]
[των ανθρωπων δια τ]ην απειριαν >>> >>>
[ π̄ε̄ρι ελευ]θεριᾱ̄ς̄ και δουλεῑᾱ̄ς̄
Or. xiv. [οι ανθρωποι επιθυμ]ουσι μεν ελευθεροι ειναι μαλιστα
[παντων και φασι τη]ν ελευθεριαν με[γιστον] των αγα
[θων την δε δουλεια]ν αισχιστον και δ̣υ̣στυχεστατον υ
[παρχειν αυτο δε του]τ̣ο τί εστι̣ν̣ ελευθερον ειναι η τί
[δουλευειν ουκ ισασι και τ]ο̣ινυν ουδε ποιουσιν ουδεν
[ως επος ειπειν οπως το] μ̣ε̣ν αισχρον και χαλεπον εκ
[φευξονται την δουλ]ειαν ο δε δοκει αυτοις πολλου αξι
[ον ειναι κτησοντ]αι την ελευθεριαν αλλα τουναντιον
[ταυτα πραττουσι]ν εξ ὡν αναγκη τους επιτηδευον
[τας διατελειν δου]λους οντας τον απαντα χρονον και
[μηδεποτε ελευθε]ρ̣ιας επιτυχειν πλην τουτο γ' ουκ α
[ξιον ισως θαυμασ]αι οτι ουτ' ελειν ουτε φυλαξασθαι
[δυνανται ο τυγχα]νουσιν αγνοουντες ει ουν ετυγ[χανον]
[αγνοουντες προβ]ατον και λυκον ⟨ο⟩ εστιν εκατ[ερον αυ]
[τοιν ομως δε ηγου]ντο το μεν ωφελιμον και [κτησασθαι]
[αγαθον το δε βλαβ]ερον και ασυμφορον [ουκ αν ην θαυμασ]
[τον ουδεν ει το μεν] π̣ροβατον εφοβου\ν/το και [εφευγον ενι]
[οτε ως λυκον τον] δ̣ε λυκον προσϊεντο κ[αι υπεμενον]
[νομισαντες προβ]ατον η γαρ αγνοια τοι[αυτα εργαζεται]
[τους ουκ ειδοτας] και αναγκαζει ταναντια φευγειν
[και διωκειν ων] βουλονται και των συμφεροντων φε
[ρε δη σκεψωμε]θα ει αρα τι οι πολλοι επισταν̣ται περι ε
[λευθεριας και] δουλειας σαφες ϊσως γαρ τοι ματην αυ
[τους αιτιωμε]θα οι δε παντος μαλλον το αυτο ϊσασιν ει

25. ᾗ omitt. MSS. Added by Dindorf. 28. ἔτυχεν ὧν MSS. 29. καί after ὅτι MSS., omitt. M and perhaps Pap. 31. ᾗ added above the line. After ἄν in l. 30 MSS. 39. ὅ,τι ἐστὶ τὸ . . . ἢ ὅ,τι τό MSS. except M which omits τό with the Pap. *Cf.* l. 60 below. 40. τοι of τοίνυν uncertain. More like κ]αι? 42, 43. τὴν δουλείαν, τὴν ἐλευθερίαν delet Herwerden. 45. δουλεύοντας MSS. 46. μηδεπώποτε MSS., perhaps too long for space. Pflugk had already suggested μηδέποτε. ἐπιτυγχάνειν MSS. τούτοις without γε UBM, τούτους without γε T et vulgo. 48. εἰ γοῦν MSS.; ἤγουν M. 49. ὅ libri; ὅ,τι vulgo. 56. καὶ τῶν συμφερόντων delet Wegehaupt. ἀλλὰ γὰρ φέρε δή UBT. 58. σαφῶς UT. 59. τὸ αὐτό Pap., ταῦτα MSS. Perhaps read τὸ αὐτὸ τοῦτο?

[ουν εροιτο τις] αυτους ὁτι εστι το ελευθερον ειναι φαι
[εν αν ισως το] μηδενος ειναι ὑπηκοον αλλα πραττειν
[απλως τα δ]οκουντ' εαυτωι τον δε τουτ' αποκριναμε
[νον εαν τις] επερωτα\ι/ ει εν χορ[ωι χορευτ]ην ουτα μη προσε
[χειν τωι κο]ρυφαιωι μηδ'.[

Fr. 2 verso.

. . . .

Or. xiv, 6.

δου]λους ειναι[
το]τ' ανϊσταν[ται
] αιρουνται [
] και επϊασι και αναχ[ωρουσι
στρατηγο]ῡ κελευσαντος ουδ[ε γε
το]ις ἰατροις ου δια [τουτο
ο]υ σμικρα γ[ε
πει]νην και [διψην
π]οτε τ̣ο̣[ν καμνοντα
]..[

. . . .

Fr. 2 recto.

. . . .

Or. xiv, 11.

] περι πολλω[ν
αργυρ]ιον οι μεν πο[λεμιοις
τ]ην αυτην τι[μην
δεσπο]ταις και ου δηπου δου[λοι
αλλα μη]ν ου αν εξῃ̣ι̣ ετερωι μ̣α̣σ̣τ̣[ιγωσαι
κα]ι αλλ οτι αν βουλη . . . [
] ο̣υκ εξεστι τοις̣ [
Traces of 3 lines.

. . . .

Fr. 3 verso.

. . . .

]. . . τ̣ο̣ μονον υπερβολαις αλ
διη]νεκεσι παντα ομοιως εξ υγραινον
των ] . ραν ὑπηρχε το του κοινου ολεθρου
α]σ̣φαλεστερον υπηρχε τα των ανθρω
πων νυν δ εμ]πης γαρ κηρες εφεστασιν
θανατοιο μυρι
αι ας ουκ εστι] φυγειν ουδεν γενος ανθρωπων
ουδ' εν
]πι τουτων απαντων ουδ' ουτω θαυμα
στον ]ο̣τηριον ευρι . [
αν]ασχετων οι π . [
Foot of page.

Fr. 3 recto.

. . . .

. ] . . να των εξ α . . ων ρειθρων και . . . [
. ]λα και ασθενη καθαπερ ανδρων νο[
και προς εσχατην ηδη κινδυνου ρ . [
ενδον και λεπτα σωματα τοτε γαρ το . [
την φυσιν ὑπερβαλειν και τοτε μαλιστ[α
τοις εν αδειαι̃ και σκεπηι γιγνεσθαι τοτ[ε
νομενης αει ποτε της γης τοσουτο μ . [
]νεπιναιταπ̣[
κ]οιλα και τα ὑγ[ρα
Foot of page.

60. εἶναι omitt. UT. 61. εἶναι omitt. v. Arnim cum MSS. 73. το[ν rather than τω[ι, in which case τῷ ἰατρῷ of the MSS. is omitted. 77. τὴν αἵτῶν (αὐτῶν M) τιμήν MSS. 89. *Iliad*, XII, 326. 100. Corrected from τοσουτω.

Fr. 4 verso.

. . . .
]ι πολυῤ . [
]οι και ὁυς αυτ[
]ι̣σθαι δηλαδ[η
]ει δ' ουτω δε[
]ος Αχαιων νηα . [
]γηις δοκει δε μ̣[
] . ν ουτω περι̣[
]ι̣ς ανθρω[π
] . ν αλισκεσθ[αι
]ν Οδυσσευ[ς
]ων θαυματ[
. . . .

Fr. 4 recto.

. . . .
]ηδ' αλ̣[
]' εν οχλω̣ι̣ [
]στην αιτιαν̣ [
κ]α̣ι αηδη καλ̣[
] και δυναμιν [
σ]υμβαλειν ουδ[
]πως εκ τινος ου . [
] . ν εγιγνετο . . [
το]υς λιθους . [
] . απορον δε̣[
]πως εθελ . [
]τ̣ον γε τροπο̣[ν
] . . . . υ̣γ̣ετικ . [
. . . .

Fr. 5 verso.

. . . .
]αι την των καρπων[
] . ' ο ανηρ και ο λογος εν . . . . ρ̣χ̣ε[
]ηναι και προς ὑμας εφη γαρ και π[
]ου τροφην τε και αυξησιν ειναι . [
]ου τεκοντος ει μελλει τινα . . [
] . η καλλος το οικειον ει δε μ[
τρε]φομενον δι αλλοτριου τ[
]σ̣θενες δε γι̣γ̣α . . . [
One line missing, then foot of page?

Fr. 5 recto.

. . . .
]υοντι ραιδιως αν υ̣ . [
] . τιλ . . . . δεξιως πρ[
] . ι̣μενων φιλοσοφων κλητθ . [
]ητ' ανωφελης ειναι βουλομεν[
] . ι προς ηδονην παντα και χαριν [
φιλοσο]φο̣ι̣ τε και αγύρται και τινες π̣[
] . δε και φιλοσοφους αυτου[ς
π]ολυ εκεινων η νη Δι' ευ̣[
] . . . . [ . . . . . ]αρρη[
One line missing, then foot of page?

Fr. 6 verso.

. . . .
ουδ' αυξ . . [
και χειματ̣[
τηι και πα[
αυτωι ου[
νοσανθ . [
τις εθελ[
ρουσιν [
Foot of page.

Fr. 6 recto.

. . . .
τ]ουναντιον
] μη απειρη
[το ]ραδ' αλλως
]ο̣ν τελω
ο]υ μα Δια
]ς και γαρ
]αι δυσχε
Foot of page.

107. The ο of ος has now flaked off but was distinct when first transcribed. The letter after νῆα perhaps δ, not ς. No doubt a line of the *Iliad*, but which is uncertain. 142. Or ἦν ἡ δι' εὐ.

Fr. 7 verso.

. . . .
]....λιθον αγαν τας πολ[
]γοραις πασαν Αιγυπτον απο[
]ον πελαγος ουτως ουν πολλη[
]ν αποτετης θεο..[
].π̣ο̣τ̣α̣[
. . . .

Fr. 7 recto.

. . . .
]τ̣α̣ι̣ υγρ.....νερ[
]μεν εριs τηξηι τα μαλθακ̣[α
].ι̣ απαντων δ' αποδειξηι χ[
]..... ν̣ και φυτων φασιν [
]ν ϊσχυν το[
. . . .

Fr. 8 verso.

. . .
]ι̣ερ̣[
]τ̣αι γ[
].ντ[
]νοσ[
]κ̣αι[
].ϊ̈γ[
]ολλ[
. . .

Fr. 8 recto.

. . .
].γ̣τ̣[
]. δου.[
]τ̣οις̣[

Traces of 4 lines.

. . .

Fr. 9 verso.

. . .
]κ̣α̣λ̣ηις γ̣η[
π]οταμου τ̣[
. . .

Fr. 9 recto.

. . .
]οσα.[
ξ]ηραινομ[εν
το]υ αερος τ[
. . .

161. The letters $\epsilon\tau\eta\varsigma\ \theta\epsilon$ seem to be cancelled by dots above and below them.

## 2. The *Georgos* of Menander.

The following scraps (Brit. Mus. Pap. 2823a) from a fourth century codex have been identified with the *Georgos* of Menander on the strength of the coincidence between ll. 1–3 and a quotation from the *Florilegium* of Stobaeus, printed at p. 94 of Jensen's *Menandri Reliquiae* (1929). Very little can be deciphered with certainty owing to the darkened and wasted surface of the papyrus, but for the sake of possible discoveries in the future it has seemed worth while to publish even the faintest indications. The script is a rather rough upright uncial of medium size with the letters $o$, $\epsilon$, $\theta$, $\sigma$ very much compressed laterally. Elision marks and accents are occasionally provided, and above ll. 10, 12 and 21 interlinear glosses have been inserted in a minute hand. Two other papyri of the *Georgos* are extant, one at Florence (P.S.I. 100) of the fourth century and the other at Geneva of the fifth to the sixth century. The present fragments may actually belong to the Florentine codex, to judge from its description. Only a photograph could decide the question.

Pap. 2823a.

Fr. 1 verso.

. . . . . .

ενεκα] μονον νο[μιζεθ ουτος του λαβειν
και] συκοφαντης ε[υθυς ο το τριβωνιον
εχω]ν καλειτ[αι καν αδικουμενος τυχηι

. . . . . .

Stobaeus, *Flor.*, XCVI, 5. MSS. μονου.

Fr. 1 recto.

. . . .

]ο̣.....[
]ορατ̣....
]τ̣ερ̣...

. . .

Fr. 2 verso.

. . . .

]...κ̣ο̣.ω̣[
].εινος.[
].α την γυναικα μ̣[
].α.
] ρ̣α̣ι̣δ̣ι̣ο̣ν̣.τωνδ' ο̣[
] ν̣υνῖ γε κακον ο Ζευς [
φιλοσοφιαν
] φροντιδ' εξεργα[ζεται
]τ̣ην εαν μη συν[
]εαν μη συντριβ[
] ω̣ς τάχιστα μοι γει̣[
].π.....ι̣εισπ..σ̣ο̣[

. . . .

Fr. 2 recto.

. . . .

]ε̣ι̣α[.] αργυριον υ[
]ν εσκοπεῖ τοπον [
]..τ̣ο̣υ̣θ̣ ὁ̣ αδικῶν π̣[

].ε̣ν̣..ο̣ν̣τ̣εσ̣.....[

]ειδοσ[
]ο̣ν̣υ.....ε̣τακο̣[
].π̣ι̣.θ̣ε̣ κατεβαλ.[
].κακεινος οτι π.[
]...κον.ν̣ε̣..σ̣[
]...ν̣υπτ̣ι̣ο̣.[

. . . .

Fr. 3 verso.

. . . .

]κ[
]α̣ δ̣ρ̣αν εφρο.[
]κ̣λ̣εες χρηιμ[
]..ρυτα[
]τ̣ο̣υ δοκε[
]τοδεο̣ι̣ν[
]τ̣α̣σ̣[

. . . .

Fr. 3 recto.

. . . .

]σκοπει..[
]ν̣ο̣ν̣ε̣ν̣χ̣ε̣[
]..κ̣ε̣[
]ι̣τικωι̣[
]ε.τ̣ο̣σ̣..[
]..ο̣ι̣γ̣[

. . . .

10. Remains of a gloss above. 12. φιλοσοφιαν inserted as gloss above φροντιδα. 13, 14. Obviously dialogue. 15. γερ̣[ον? 21. ]ειδοσ̣[ inserted as gloss above τακο̣[.

# THE STELA OF ḤEḲA-YEB

TRANSLATED AND ANNOTATED BY HANS JAKOB POLOTSKY

With Plate xxix.

The funerary stela No. 1671 of the British Museum, published on Pl. xxix for the first time[1], is of that characteristic type which enables us at once to confine its date to the First Intermediate Period before the Eleventh Dynasty, and its provenance to Upper Egypt[2]. Its inscription, which is the main subject of the present paper, has been styled "difficult and interesting" by Dr. Gardiner[3], which verdict will, I hope, excuse the marks of interrogation abounding in my translation, and justify the length of the philological notes added.

Through the kindness of Dr. Gardiner I was able to use this inscription for my little volume *Zu den Inschriften der 11. Dynastie*[4]; I wish to offer him my thanks here for his generosity in leaving the publication to me, and to Dr. Hall for his consent thereto.

## TRANSLATION[5].

The small numbers refer to the notes which follow.

(1) *May the King be gracious and grant, (and also) Anubis, he on his mountain,* imi-wt, *the Lord of the Sacred Land, that an offering be given by the Great God, the Lord of Heaven, to the honoured one, the Sole Companion Ḥeḳa-yeb; he says:*

*I was a good citizen speaking* (2) *with his mouth and acting with his arm*[1]*, who makes his town keep at a distance from him*[2]*. I was a noble one in Thebes, a great pillar in Khentēyet*[3]*. I surpassed every peer of mine in this city*[4] *in respect of riches of every kind. People* (3) *said, when I was making acquisitions by my (own) arm: "[he is] one that is free from robbing another*[5]*." I provided*[6] (4) *this whole city with Upper Egyptian barley for many(?) years*[7]*, not to speak of the ...*[8]*. I gave bread to the hungry and* (5) *clothes to the naked*[9]*. I did not calumniate great ones; I gave ease*[10] *to little ones.* (6) *I gave a loan of corn(?)*[11] *to Upper Egypt and Upper Egyptian barley to this northern district*[12]*. I gave oil to the nome of El-Kâb after* (7) *my town had been satisfied*[13]*. I made a ship of 40 (cubits)*[14] *and(?) a bark, for transporting*[15] *cattle and for ferrying him who had no boat in the season of inundation. I appointed*[16] (8) *a herdsman to (my) 200(?) head(?)*[17] *of(?) cattle and (further) herdsmen to (my) goats and to (my) asses. My people were more numerous* (9) *and my ...*[18] *were greater in number than those of any peer of mine. I was a (real)* Ḥḳꜣ-ib (i.e., *one mastering his heart*[19]) *with respect to going forth in dangerous situations*[20]*, while everybody else was shutting his door.* (10) *When the ruler*[21] *counted my cattle, he found*

[1] It will also appear in the new edition of the *Guide to the Egyptian Collections of the British Museum.*

[2] Otherwise there is no information as to its provenance; it was bought for the Museum some years ago, Dr. Hall tells me.

[3] *Letters to the Dead*, 16.

[4] Vol. XI of Sethe's *Untersuchungen*, Leipzig, 1929; referred to as *Inschriften.*

[5] See Pl. xxix, and, for ll. 3–12, the facsimile on p. 195.



Stela of Hekayeb.
British Museum No 1671.

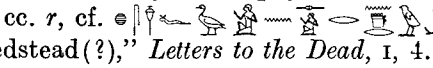
*that my possessions had increased. As for everyone that had to deal*[22](?) (11) *with me, I caused him to bend his arm*(?)[22]. *I have gone forth from my house and descended into my tomb*[23], *my house being established*[24] (12) *and my heir's arm being strong*[25].

*What has been performed for him by his eldest son, his beloved*[26], *Ini, the establisher of his father's house.*

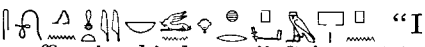


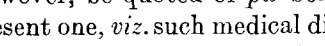

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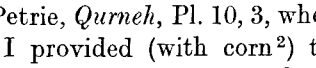
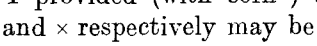
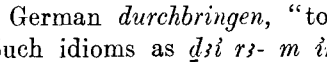
1. *nḏs iḳr, ḏd m rꜣ·f, ir m ḫpš·f*, see *Inschriften*, §§ 59 and 73*f*.

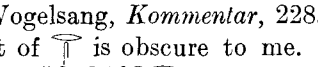
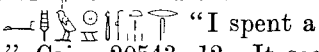
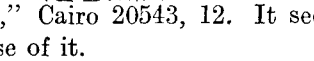
2. *ḫsf* cc. *r*, cf.  "One who keeps away a man's son from his bedstead(?)," *Letters to the Dead*, I, 4.

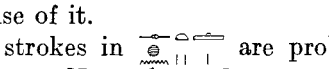
3. Cf. *iwn ḥꜣ m Wꜣst, nḥb kꜣw·f m Ḫntyt*, Cairo 20001*b*, 1–2 (*Inschriften*, § 55). *Ḫntyt* does not occur elsewhere; for its meaning see Sethe's suggestion, based mainly on the etymology, ap. *Inschriften*, 71. *šps* appears in parallelism with *iwn ḥꜣ* in Brit. Mus. 159, 11.

4. *Cf.*  "I surpassed every peer of mine that had been holding office in this house," Cairo 20543, 19.

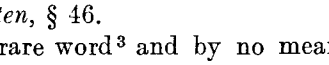
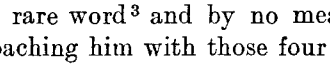
5. Cf. *Inschriften*, § 73*d*, where this passage is quoted, together with several others, to illustrate the idiom *ỉrỉ m ḫpš-* (*ḏs-*) "to acquire (honestly) by one's own arm" as contrasted with inheritance (*Urk.*, I, 144; Brit. Mus. 1628[1]), royal gifts (Brit. Mus. 1164), or robbing others. For the sign following  I still adopt the reading *ḥ* suggested by Lange and Schäfer for a likewise obscure sign of somewhat similar shape appearing in practically the same context in Cairo 20001*b*, 9. This reading, far though it is from being satisfactory in palaeographical respects, admits at least of a reasonable translation. One might, it is true, rather expect a sentence with *pw* (Gardiner, *Eg. Gramm.*, § 128), the presence of which would, at any rate, put Lange and Schäfer's interpretation almost beyond doubt. Examples may, however, be quoted of *pw* being absent in sentences of exactly the same character as the present one, *viz.* such medical diagnoses as  "Thou shalt say: 'One suffering from an abscess on his neck,'" *Ebers*, 51, 22.

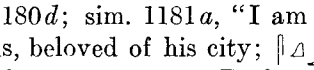
6. For *ḏỉ*, cf. Petrie, *Qurneh*, Pl. 10, 3, where  says:  "I provided (with corn[2]) the temple of Amūn in hard years." The determinatives  and × respectively may be quite legitimate; the metaphor would have a parallel in the German *durchbringen*, "to nourish under, and in spite of, difficult circumstances." Such idioms as *ḏỉ rɜ- m ỉrtt* "to suckle" are to be explained in a different way, see Vogelsang, *Kommentar*, 228.

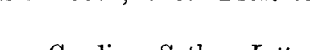
7. The purport of  is obscure to me. It occurs again in the following passage:  "I spent a long time there (*scil.* in Denderah), a great number of years...," Cairo 20543, 12. It seems tempting to refer  to the town, but I cannot make sense of it.

8. The three strokes in  are probably the plural-strokes, in spite of their irregular arrangement. No such word appears to be known, nor is it in any way clear to what kind of benefits it refers.

9. Cf. *Inschriften*, § 46.

10. *śḳbḥ* is a rare word[3] and by no means an easy one to translate; *cf.* "Phiops finds *Ḳbḥwt* approaching him with those four water-jars of hers,  by which she refreshes the heart of the Great God on his day of awakening," Pyr. 1180*d*; sim. 1181*a*, "I am one wealthy amidst his city, a great one, a lord of possessions, beloved of his city;  living in easy circumstances in every respect," Cairo 20007, 5–6. Professor Kees draws my attention also to his *Opfertanz*, 53.

11. *ṯɜbt*, see now Gardiner-Sethe, *Letters to the Dead*, II, 5 n. (p. 18). Their new rendering "loan (of corn)" is perhaps supported by the determinative  of our inscription, while, on the other hand, "(some sort of) corn" would seem to be more appropriate for parallelism with "Upper Egyptian barley"; see next note, end.

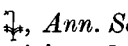
12. The interpretation of this sentence depends on the two groups which I have read *šmʿ* "Upper Egypt[4]" and  "district" respectively; and it is owing to these two words that my rendering differs so widely from that given by Gardiner-Sethe, *Letters to the Dead*, II, 5 n. (p. 18). For *šmʿ* "Upper Egypt" written with the three grains, *cf. e.g.*

[1] With *gbɜ-* instead of *ḫpš-*.

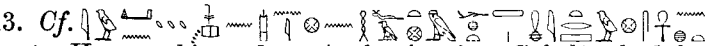
[2] Implied in the second determinative.

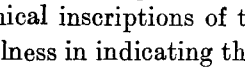
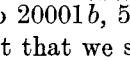
[3] According to the evidence of the *Wb. d. aeg. Spr.*, for information about which I am indebted to the kindness of Fräulein Ursula MacLean. The Pyr. example is due to this source.

[4] The horizontal element below the plant is not  but the "land"; it is replaced by  when "Upper Egyptian barley" is meant, ll. 4 and 6.

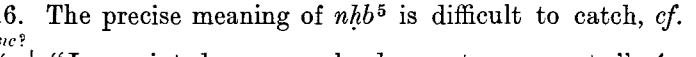
, *Ann. Serv.*, XVII, 136 = Cairo entr. 43371, l. 3[1] (Sixth Dynasty). This misuse may have originated in the sportive arrangement, found in our inscription, of the grains in the word for "Upper Egyptian barley," making them appear to drop from the hanging top of the plant; eventually they may have come to be regarded as an integral part of the hieroglyph *šmʿ*. It certainly does not speak in favour of Gardiner-Sethe's reading *šsp·n(·i)*—for which I propose *ʿ pn*—that they were unable to make sense of . The thing placed upon the hand in  is, in my opinion, the stroke indispensable with the word which I believe we have here.

Turning now to the sentence as a whole, nobody will fail to observe that the sense thus obtained is not altogether satisfactory. More serious still than the incongruity of *t3bt* and *šmʿ*-corn—provided that Gardiner-Sethe's explanation be accepted—is that the scene of the deceased's activity (*pn* "this...here"), which cannot by any means be doubted to have been Thebes or its neighbourhood, should be termed *ʿ mḥtỉ* "northern district" (an expression sometimes used in the sense of "Lower Egypt"), in contrast with *šmʿ* "Upper Egypt." I am much inclined to think that no reconciliation with normal geographical terminology must be attempted, but that reality has fallen a victim to the exigencies of style, *i.e.*, to the need for parallelism. The fact that Thebes is more northerly than, *e.g.*, El-Kâb (*cf.* l. 6), is, of course, no reason for excluding it from *šmʿ* "Upper Egypt[2]."

13. *Cf.*  "I gave[3] Upper Egyptian barley to Hermonthis and to Asphynis after Gebelên had been fed," Cairo 20001*b*, 6.  stands for *ḥtp·t(i)*.

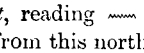
14. "Having made a ship of *x* cubits" is one of the commonplaces in the autobiographical inscriptions of this period. The following examples show three different degrees of fullness in indicating the number of cubits: (1) [4], *Ann. Serv.*, XV, 207 = *Comptes rendus Acad. Inscr.*, 1915, 369, l. 2; (2) , *Amer. Journ. Sem. Lang. Lit.*, XXXVIII, 56, 9; (3)  "I made a ship (of) 30 (cubits) and another ship (of) 30 (cubits)," Cairo 20001*b*, 5–6. The absence of an indication of measure after *dpt* might perhaps suggest that we should take it in apposition to .

15. To introduce a new word of suspicious appearance into the vocabulary,  "to transport (cattle) across the river," seems unavoidable.

16. The precise meaning of *nḥb*[5] is difficult to catch, *cf.*  "I appointed my own herdsman to my goats," *Ann. Serv.*, XV, 207, l. 4; also Cairo 20001*b*, 4, where, however, the meaning must be different, although the context is similar.

17. A numeral would be appropriate in this place although there is none after *ʿnḫt(·i)* and *ʿ3w(·i)*. The sign resembles rather the hieratic form for  than the hieroglyph ;

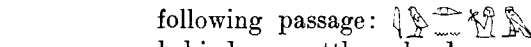
[1] So arranged in horizontal line (kindly collated by Dr. Schott).

[2] Professor Sethe, with whom I had the good fortune to be able to discuss the text after this article had been sent off, suggests an explanation of this difficult passage conveying a practically satisfactory sense. The words *šmʿ*  *ʿ pn mḥtỉ* he would take not as a parallel member to *t3bt n šmʿ*, but as an apposition to *t3bt*, reading  as *n(i)*: "I gave a loan of corn to Upper Egypt, (consisting of) Upper Egyptian barley from this northern district."

[3] Not  *ḫrp*, as was read by Gardiner, *Eg. Gramm.*, § 327.

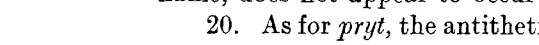
[4] Read .

[5] The feather on the breast of the bird is developed in a sportive manner, so as to resemble the phonetic complement ; *cf.* also Cairo 20001 *b*, 2.

for the plural used with numerals see Gardiner, *Eg. Gramm.*, § 261, paragraph 2. As an alternative, one might imagine it to be another word for "herdsman," but a more definite suggestion can scarcely be offered; moreover, the same word is actually used thrice in the following passage: [1] "I placed a herdsman behind my cattle, a herdsman behind my goats, and a herdsman [behind my asses?]," Petrie, *Qurneh*, Pl. 10, 4–5.

18. I cannot offer any explanation of this sign.

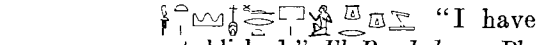
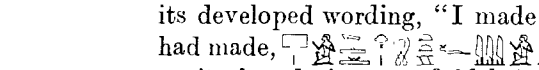
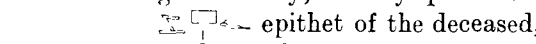
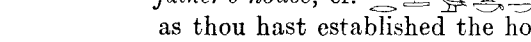
19. A play upon the deceased's name; *ḫkꜣ-ib*, though not uncommon as a proper name, does not appear to occur as an epithet elsewhere.

20. As for *pryt*, the antithetical parallel clause  "while everybody else was shutting his door" forbids, I believe, our going far beyond the primary meaning of the stem *prỉ* "to go forth"; and , which seems to do duty for a determinative, recalls the hieratic sign usually transcribed [2], appearing as such with certain words of evil meaning in some texts of the First Intermediate Period and the Early Middle Kingdom, *cf.* Anthes, *Die Felseninschriften von Hatnub*, 31; Gardiner-Sethe, *Letters to the Dead*, III, 3 n. (p. 19); so one may provisionally venture the somewhat vague and periphrastic rendering given above.

21. Rather the nomarch than the king.

22 (*bis*). My rendering of *msbb* is a mere guess; for better ascertained meanings of the stem see *Wb. d. aeg. Spr.*, II, 143. I have tentatively taken *ḳ(ꜥ)ḥ* as meaning a gesture of reverence.

23. See *Inschriften*, § 47.

24. The expressions in which *pr* appears as (semantic) object of *grg*[3] may be divided into three groups. (1) *The householder, on his decease, leaves his house established*, cf. [4] "Neha has come from his city, Neha has descended from his nome[4], his house being established and his seat being firm," Chassinat-Gauthier-Pieron, *Fouilles de Qattah*, 44; similarly *ibid.*, 45;  "I have descended into the Beautiful West, my house being established," *El Bersheh*, II, Pl. xxi, below, 4–5; the following example is interesting for its developed wording, "I made a testament for my son exceeding that which my father had made,  my house being established on its foundation, my field being in its place, there not being anything of it that had gone astray, all my possessions being in their proper place," Leyden V. 88, 11–2;  epithet of the deceased, Berlin Pap. 10482 (Early M.K.), *ap.* Grapow, *Sitzungsber. Berl. Akad.*, 1915, 379. (2) *The son, having entered into his inheritance, establishes his father's house*, cf.  "May thy son establish thy house as thou hast established the house of thy father," *Letters to the Dead*, I, 12;  "I established the house of my father, I filled it with riches," *Amer. Journ. Sem. Lang. Lit.*, XXXVIII, 56, l. 8; perhaps *grg* means here rather "to keep established" or "to establish anew." (3) *To establish an independent household*, for

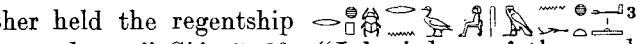
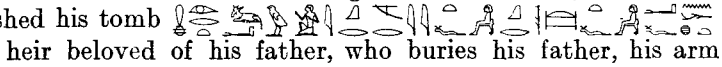
[1] The traces given in the publication do not suit .

[2] It must not necessarily be inferred from the fact of  actually appearing in our inscription that this is the transcription to be adopted. The sculptor may, of course, likewise have been subject to some uncertainty as to the true equivalent.

[3] See Gardiner-Sethe, *Letters to the Dead*, I, 12 n. (p. 16) and VI, 5 n. (p. 22).

[4] Note that *pr·f grg* is preceded here by the formula of which *pr·n·ỉ m pr·ỉ*, *ḫꜣ·n·ỉ m ỉs·ỉ* (see last note) is the variant characteristic of Upper Egyptian inscriptions of the Intermediate Period (*Inschriften*, § 47 *b*).

which *Prisse*, 10, 8 (in connexion with marriage) and *Urk.*, IV, 3, 2[1] (in contrast with youth and unmarried life) are well-known instances.

25. Having grown "strong of arm," *i.e.*, adult to a certain degree[2], is the quality by which an heir is enabled to enter into his inheritance and to fulfil the duties connected therewith; *cf.* "The nomarch's mother held the regentship  until her son had become a strong-armed one," *Siût*, 5, 29; "I buried my father and furnished his tomb  as must be done by a good heir beloved of his father, who buries his father, his arm having grown strong," Petrie, *Athribis*, Pl. 6 (Late O.K.), end; this passage has been translated in a slightly different way by Sethe, *Ä.Z.*, LXI, 69, n. 4.

26. This is the concluding formula of some contemporary inscriptions, e.g., *Amer. Journ. Sem. Lang. Lit.*, XXXVIII, 56; Cairo 20001; in Brit. Mus. 1059 (collated with photograph) the phrase is excluded from the main inscription and written above the deceased's son presenting a cup to his father.

The deceased is accompanied by his beloved wife, Sole Favourite of the King, Priestess of Ḥathōr, Senet and his beloved son Yeḳer. The steward Ren-yeḳer presents to him a cup, saying: "For the ka of my lord[4] Ḥeḳa-yeb, the excellent one"; another man presents the leg of an ox, but the inscription referring to him is illegible. References for the proper names will be found in Lange-Schäfer's *Index*.

[1] Without a suffix after *pr*.

[2] Whether this degree was connected with a definite age, or differed in individual cases, is not to be ascertained, so far as I am aware.

[3] The papyrus-roll may indeed be intended to indicate a less concrete sense of the term.

[4] Perhaps "for thy ka," if  may be read.

# EGYPTIAN PREDYNASTIC STONE VESSELS[1]

By A. LUCAS

The aspects of the subject that it is proposed to consider are, first, the nature of the stones used, second, their place of origin and, third, the bearing of the facts upon the problem of the home of the people who made the vessels.

The materials of which the vessels consist are shown in Table I, which is based upon the description given in the archaeological reports to which reference is made, but includes several modifications introduced by the writer. Thus, in order to simplify the matter as much as possible, related materials are grouped together under one general heading, the separate materials so treated being indicated in every case. Also, what is termed porphyry in the archaeological reports is called by the writer porphyritic rock. The name porphyry (derived from a word meaning purple) was originally applied to a certain kind of purple tinted rock (imperial porphyry), but in geology this primary significance has given place to one in which structure and not colour is the guiding characteristic, a porphyritic rock being any kind of igneous rock in which there are conspicuous crystals scattered throughout a differently coloured ground-mass or matrix of apparently homogeneous material.

One specimen of emery has been omitted, as this is not an Egyptian stone; also one of gypsum, as the date is probably protodynastic, and several others, because either the nature of the stone is not specified or the description is not sufficient for identification.

The writer has examined as many as possible of the stones used for vessels both in Predynastic and early Dynastic times, but, as they were mostly museum specimens, the examination was often necessarily limited to a naked eye inspection, or, at most, an examination with a lens. This, however, is not always sufficient to establish the identity of a stone, for which purpose a microscopic study of a thin section is sometimes requisite. In a comparatively large number of cases of the more doubtful materials broken fragments of early Dynastic date were fortunately available[2], and then a microscopic examination was made[3]. In a few instances, too, a chemical analysis was also carried out to assist further in the identification.

The various localities in Egypt where the stones mentioned in Table I occur and the places from which they were probably obtained for making vessels in Predynastic times are shown below.

The first two columns of Table II need no justification; the nature of the various stones is that recorded in the archaeological reports quoted in connexion with Table I, and the occurrence of the stones is vouched for by the geologists in the reports to which reference is made. The statements in the third column, however, which are those of the writer, require proof, and this will now be given. First, however, the term "Nile Valley cliffs" used in that column must be defined.

[1] Includes Badarian and Neolithic.

[2] The writer is particularly indebted to Mr. C. M. Firth and Mr. R. Engelbach for these fragments.

[3] In many cases the writer's identification has been kindly checked by Dr. W. F. Hume, of the Geological Survey of Egypt and by Mr. G. W. Grabham, Geologist to the Sudan Government.

TABLE I.

| Nature of Stone | Remarks |
|---|---|
| Alabaster[1–5,7–9] | Calcite |
| Basalt[1–5,7–9,11,12] | Includes fine-grained dolerite |
| Breccia[1,2,4–9,11] | Chiefly red and white |
| Diorite[1,2,9,11,13] | Speckled |
| Granite[1–3,9] | Includes red granite, black-and-white granite and syenite |
| Limestone[1–5,7–10,13] | Amorphous and variously coloured |
| Marble[1,2,4,8,11] | Includes all varieties of crystalline limestone except calcite |
| Porphyritic rock[1–4,9] | Includes porphyritic diorite |
| Schist[2,4,7–9] | Includes various metamorphic rocks, such as tuff (volcanic ash), mudstone and slate |
| Serpentine[1,3,9] | Includes steatite |

In contrast to the far desert, the home of the nomad, out of sight of the Nile and at a considerable distance from it, there is a desert border lying within easy reach of the river, often within sight of it and readily accessible to the valley dwellers. Any stone occurring in this border could easily have been worked by the Predynastic valley people from their homes, in the same manner as gypsum for plaster and limestone for building purposes and for lime-making are now worked. The villages, too, at that period would have been farther from the Nile and nearer the cliffs than are the villages to-day, on account of the marshes then fringing the river. No wholly satisfactory name to express this region has been found, but the term "Nile Valley cliffs" has been adopted as the best available, although it is not sufficiently comprehensive, since the area it is meant to describe includes not only the face of the cliffs that border the valley but the desert side also, with the plateaux and low hills immediately behind, as well as the land for a short distance up the side valleys.

For the small amount of stone of any one sort worked in any particular locality in Predynastic times in order to make vessels extensive quarry operations would not have been needed, and traces of this working are not likely to have persisted to the present day. Doubtless, too, the stone used was often taken from blocks that had fallen from the cliffs, rather than from the cliffs themselves.

The various stones may now be dealt with separately and this will be done in the alphabetical order in which they are given in the tables.

[1] Petrie, *Prehistoric Egypt*, 35, 36; Pls. xxxiv–xlii.

[2] Petrie and Quibell, *Naqada and Ballas*, 10, 36.

[3] Petrie, Wainwright and Mackay, *The Labyrinth, Gerzeh and Mazghuneh*, 21, 22.

[4] G. Brunton and G. Caton-Thompson, *The Badarian Civilisation*, 28, 57, 58; Pl. li.

[5] G. A. Reisner in *Arch. Survey of Nubia, Rpt. for* 1907–1908, 116, 119, 125, 128; Pl. 64.

[6] C. M. Firth in ditto for 1910–1911, 192.

[7] R. Engelbach, *Harageh*, 7, 14.

[8] D. Randall-MacIver and A. C. Mace, *El Amrah and Abydos*, 16–24, 48; Pls. viii, xvi.

[9] Petrie, *Diospolis Parva*, 19.

[10] Ayrton and Loat, *Predynastic Cemetery at El Mahasna*, 11, 12, 16.

[11] E. Naville, and others, *The Cemeteries of Abydos*, I, 14; Pls. ii, iii.

[12] Miss Caton-Thompson writes: "...the Neolithic Fayumis were using local basalt for stone vases as well as axes." Private letter, dated 1st Feb. 1930.

[13] Quibell and Green, *Hierakonpolis*, II, 50; Pl. lxiv.

TABLE II.

| Stone | Occurrence | Where obtained |
|---|---|---|
| Alabaster | Nile Valley cliffs[2]; Cairo-Suez desert[3]; Sinai[4] | Nile Valley cliffs |
| Basalt | Near Cairo[1,2]; Cairo-Suez desert[1,3]; Fayyûm[1,5]; Aṣwân[6]; Baharia Oasis[1,7]; E. desert[1,2,8,9]; Sinai[1,2,10,11] | Fayyûm |
| Breccia | Nile Valley cliffs[2]; E. desert[8] | Nile Valley cliffs |
| Diorite | Aṣwân[6]; E. desert[1,8,9]; Sinai[1,10,11,12] | Aṣwân |
| Granite | Aṣwân[1,6]; E. desert[1,8,9]; Sinai[1,10,11,12]; W. desert[13] | Aṣwân |
| Limestone | Nile Valley cliffs[1,2] | Nile Valley cliffs |
| Marble | E. desert[2,8,9] | E. desert |
| Porphyritic rock | Aṣwân[6]; E. desert[8,9]; Sinai[10,11] | E. desert |
| Schist | E. desert[1,8,9]; Sinai[10,11] | E. desert |
| Serpentine | E. desert[1,8,9] | E. desert |

### Alabaster (Calcite).

Alabaster is reported from four areas only[14], one in the Cairo-Suez desert, where it was worked for a short period in modern times[15], but where there is no trace of ancient working; a second in Sinai, where there is no evidence of its ever having been worked; and the third and fourth near Ḥelwân and in the district extending from about Miniah to a little south of Asyûṭ, respectively. In both places there are ancient quarries, those at Ḥelwân dating certainly from the Old Kingdom[16], and others near Tell El-'Amarnah from at least the Third Dynasty[17]. A quarry in Wâdî Asyûṭ was worked at the beginning of

[1] Geological Survey of Egypt, *Geol. Map.*

[2] W. F. Hume, *Explan. Notes to Geol. Map*, 1912; alabaster, 46; basalt, 32, 33; breccia, 46; limestone, 46, 47; marble, 47.

[3] T. Barron, *The Topog. and Geol. of the District between Cairo and Suez*, 1907; alabaster, 20, 93; basalt, 103–7.

[4] H. J. L. Beadnell, *The Wilderness of Sinai* (1927), 83.

[5] *Id.*, *The Topog. and Geol. of the Fayum Province of Egypt*, 1905; basalt, 15, 28, 34, 53, 56, 62.

[6] J. Ball, *A Description of the First or Aswan Cataract of the Nile*, 1907; basalt, 69, 86, 88, 89; diorite, 69, 79–80, Pl. v (2); granite, 68, 69–77.

[7] Ball and Beadnell, *Baharia Oasis; its Topog. and Geol.* (1903), 40, 63–4.

[8] Barron and Hume, *The Topog. and Geol. of the Eastern Desert of Egypt, Central Portion*, 1902; basalt, 52, 225, 228–9, 263; breccia, 169, 171; diorite, 59, 118, 221, 230, 233, 239, 247, 265; granite, 49, 62–3, 118–19, 225, 234, 247, 265; marble, 32, 119, 240, 266–7; porphyritic rock, 118, 227–8, 236, 238–40, 245, 262; schist, 217–21, 224, 226, 236, 238–9, 249, 264; serpentine, 224, 265.

[9] J. Ball, *The Geog. and Geol. of South-Eastern Egypt*, 1912; basalt, 310–13; diorite, 286–93; granite, 267–76; marble, 348–9; porphyritic rock, 276, 283–5; schist, 337–50; serpentine, 320–30.

[10] T. Barron, *The Topog. and Geol. of the Penin. of Sinai (Western Portion)*, 1907; basalt, 198–9; diorite, 195–6; granite, 185–95; porphyritic rock, 185–6, 189–90, 192, 195, 197; schist, 203–4.

[11] J. Ball, *The Geog. and Geol. of West-Central Sinai*, 1916; basalt, 10, 122–4; diorite, 163–4; granite, 163–4; porphyritic rock, 163–4; schist, 164.

[12] W. F. Hume, *The Topog. and Geol. of the Penin. of Sinai (South-Eastern Portion)*, 1906; diorite 71–2, 168, 240, 242–3; granite, 154–62, 239–44.

[13] F. W. Moon, *Notes on the Geol. of Hassanein Bey's Exped. to Sollum-Darfur* in *Geog. Journ.*, LXIV (1924), 388–93.

[14] See Table II.

[15] T. Barron, *The Topog. and Geol. of the District between Cairo and Suez*, 20, 93.

[16] Petrie and Mackay, *Heliopolis, Kafr Ammar and Shurafa*, 39, 40.

[17] G. W. Fraser in *Proc. Soc. Bibl. Arch.*, XVI (1893–4), 73–82; Petrie, *A History of Egypt*, I (1923), 45.

the Eighteenth Dynasty[1] and was possibly re-opened in the time of Mohammed Ali to supply the stone required to ornament the Citadel mosque in Cairo[1,2]. From the above considerations it may be accepted as practically certain that all the alabaster employed anciently, including that for the predynastic vessels, was obtained from the Nile Valley cliffs.

### Basalt.

This includes fine-grained dolerite, which is merely a coarse basalt. Comparatively large quantities of basalt were employed in the Old Kingdom; thus a pavement in the Fourth-Dynasty mortuary temple of Kheops at Gîzah was of basalt, as also the pavements of a court, of a causeway, of two small chambers and of a small offering place in a Fifth-Dynasty mortuary temple at Saḳḳârah[3], and pavements in the mortuary temples of two Fifth-Dynasty pyramids at Abusîr (between Gîzah and Saḳḳârah), the remains of all of which may still be seen. A sarcophagus found in the Fourth-Dynasty pyramid of Mykerinos at Gîzah was also of basalt[4]. As this stone occurs plentifully both in the Fayyûm[5] and in the neighbourhood of Cairo[5]—at Abu Za'bal, about halfway between Cairo and Bilbeis (Bubastis); to the north-west of the Gîzah pyramids (in the Abu Rwâsh area) and in the Cairo-Suez desert, respectively—it is highly probable that the supply was obtained locally, and, although the particular spot from which it came cannot be fixed with absolute certainty, all the evidence points to the Fayyûm as the source. This evidence may now be considered.

Petrie states that the brown basalt of the early dynastic vessels "is of the same quality as that used in the Fourth Dynasty for building, coming from El-Khankah near Bubastis[6]." There is, however, no proof of this and no evidence of ancient working at Khankah (or rather at Abu Za'bal near Khankah, where the quarries are situated). So far as is known to the writer, the Fayyûm basalt is the only one near Cairo for which there is evidence of ancient working. The paved road leading to the quarry is mentioned by Beadnell[7] and described in detail by Miss Caton-Thompson[8], the latter of whom tentatively suggests that it may be Roman. The neighbouring small temple, however, according to Miss Caton-Thompson, possibly dates from the Old Kingdom[8,9], which period is well represented in the northern Fayyûm[10]. The writer, therefore, ventures to think that both the quarry and the road are also of that date. Miss Caton-Thompson points out that "none of the Graeco-Roman towns and temples of the Fayyûm show any trace of basalt in structure or decoration" and she cannot suggest for what purpose it was required[8]. The writer, too, does not know of any use of basalt in quantity in Egypt during the Roman period, but during the Old Kingdom, as already stated, this stone was largely employed. It is true that the Romans exported imperial porphyry and speckled granite from the eastern desert to Italy, and Miss Caton-Thompson raises the question of the possible export of basalt[8]; but imperial porphyry and speckled granite are

[1] A. E. P. Weigall, *The Alabaster Quarries of Wady Assiout*, in *Ann. Serv.*, XI (1911), 176.

[2] W. F. Hume, *The Alabaster Quarry of Wâdî Asiut*, in *Cairo Sci. Journ.*, VI (1912), 72.

[3] C. M. Firth in *Ann. Serv.*, XXIX, 65, 68.

[4] H. Vyse, *The Pyramids of Gizeh*, II (1840), 84. This sarcophagus was lost at sea, but a small fragment exists at the British Museum.

[5] See Table II.

[6] Petrie, *Royal Tombs*, II, 43.

[7] Beadnell, *The Topog. and Geol. of the Fayum Province of Egypt*, Pl. XVIII.

[8] G. Caton-Thompson in *Antiquity*, I (1927), 338-40.

[9] G. Caton-Thompson and E. W. Gardner in *Geog. Journ.*, LXXIII (1929), 45.

[10] *Op. cit.*, 42, 43.

special stones used for ornamental purposes that do not occur in Italy, whereas basalt does occur and there is neither evidence nor probability of this having been exported.

Miss Caton-Thompson has shown that the good quality gypsum used during the Old Kingdom at the Gîzah necropolis for mortar and plaster was obtained in all probability from the Fayyûm[1], and the gypsum vases of Old Kingdom date found by Petrie at Gîzah[2] were probably from the same place, since at that period such vases and dishes were being made on a large scale in the Fayyûm[1]. Thus intercourse is denoted between the two places, which are only about 30 miles apart and easily accessible one from the other, it being at the present time possible to traverse the intervening desert by motor car.

Hand specimens of four of the basalts mentioned, namely, those from the Fayyûm[3], Abu Za'bal, the Gîzah pavement and the Saḳḳârah pavement[4] respectively, and microscopic sections of the Abu Za'bal and the Gîzah material have been examined and compared.

As seen in the hand specimens, the stone from all four places is very similar, the most notable difference being one of colour, some pieces being black and others brown, thus that from the quarry, whether from the Fayyûm or from Abu Za'bal, may be either black or brown, whereas that employed anciently is generally brown. This difference, however, is not fundamental, the brown being merely weathered surface material. Another difference is the size of grain, which varies in different specimens, some of the Abu Za'bal material being slightly coarser than the rest. If the Fayyûm and Abu Za'bal basalts are from the same flow, which is possible, a great similarity between them is only to be expected.

As seen in the slides, the Abu Za'bal and Gîzah specimens, though both typical olivine dolerites and generally much alike, are not identical, the former showing a yellow alteration product with little or no green, while the latter has a considerable amount of green and very little yellow[5].

The evidence, therefore, for the Fayyûm having been the source of the Old Kingdom basalt, although entirely circumstantial, is strong. To recapitulate, during the Old Kingdom basalt was employed in large quantity in the necropolis stretching from Gîzah to Saḳḳârah. In the Fayyûm, within fairly easy reach of this necropolis, there is a basalt quarry approached by a made road, and therefore, manifestly worked on a large scale, and near the quarry is a small temple possibly of Old Kingdom date. There is no evidence of the use of basalt in Egypt in large quantities, except during the Old Kingdom, and export is unlikely; there is, moreover, no evidence of the ancient quarrying of basalt near Cairo, except in the Fayyûm. The basalt employed in the Old Kingdom, when carefully examined, is found to be more nearly like that from the Fayyûm than that from Abu Za'bal[6]. During the Old Kingdom, too, another material (gypsum), employed for plaster and mortar in the Gîzah necropolis, was almost certainly procured,

[1] Caton-Thompson in *Man*, XXVIII, No. 80, 110–11.

[2] Petrie, *Gizeh and Rifeh*, 7; Pl. vi B.

[3] Kindly supplied by Miss Caton-Thompson.

[4] Kindly supplied by Mr. C. M. Firth.

[5] Any more detailed examination than that here attempted is a matter for the petrologist. Dr. J. W Evans, Past President, Geological Society of London and Dr. W. F. Hume, Geological Survey of Egypt, both very kindly made a cursory examination of the material, both hand specimens and slides, and expressed agreement with the writer's conclusions.

[6] [Miss Caton-Thompson writes:

"Miss Gardner and I agree with Mr. Lucas' inference that the basalt used in Old Kingdom monuments comes from the Fayyûm, a view which we proposed to advance independently in our full publication, now

in part at least, from the Fayyûm, and probably certain gypsum vases found at Gîzah were also obtained from the Fayyûm.

But, if basalt was obtained in large quantity from the Fayyûm during the Old Kingdom for paving purposes and for making a sarcophagus, it is not unreasonable to suppose that the small amount required for the early dynastic vessels was procured from the same place, and, if so, then it becomes exceedingly probable that this was also the source of that employed for the predynastic vessels. This is rendered still more probable by the fact that this basalt was actually used in small quantity for vases[1] and other purposes[2] as early as the Neolithic period, which is proved by the basalt objects of that date found by Miss Caton-Thompson near the quarry.

Beadnell states[3] that the basalt, although generally hard and black, is frequently decomposed, soft and of a brown colour at the base. The Abu Za'bal basalt, which is now employed for road metal in Cairo, is also mostly black, with the inferior weathered surface material brown.

At a comparatively late date, occurrences of dolerite (coarse basalt) in the eastern desert became known, since in one place (Wâdî Atollah, roughly midway between Ḳenah and Ḳoṣêr) this rock bears inscriptions of Ramesses III[4] (Twentieth Dynasty), and in another locality, in about the same latitude as Asyût, but much nearer the coast than the Nile and close to the imperial-porphyry quarry of Gebel Dokhân, there are dolerite quarries almost certainly of Roman date[5]. There is no evidence to show whether this stone was worked on a large scale or for what purpose it was required, though it may have been for purely local use, for example, for building houses for those engaged in the porphyry quarrying or stations and watch towers for those guarding the workmen. The ruins of a temple and of a small town enclosed by a fortified wall (the town containing a bath establishment with an eight-pillared hall and a plunge bath) still exist[6], but the nature of the stone employed is not mentioned, though in a chamber in a small stone building near the quarry there are seats consisting of large dolerite blocks resting on dolerite slabs[5].

in hand, on the Fayyûm. We can, indeed, considerably strengthen this assumption as a result of our work in 1927–28.

Mr. Lucas refers to the road from the basalt flow of Widân el-Faras to Ḳasr es-Sagha, an account of which I published in *Antiquity*, September, 1927. I agree with him that the probabilities are in favour of an Old Kingdom date, and some day, when I again hold that concession, the matter shall be gone into fully. But this road leads south down from the scarp, a direction which does not elucidate the question of transport to the north. We think it more probable that an ancient and well-defined road, 25 yards wide, which we followed for 12 continuous miles between the modern King's Road and Dahshûr, is the route used.

A western continuation of this road, which we could not trace owing to obliteration by wadys, would lead direct to the Widân el-Faras "quarries." Investigation of the eastern terminus at Dahshûr might settle the matter.

Microscopical examination of the Fayyûm basalt and a specimen from the Fifth-Dynasty pavement at Saḳḳârah shows them to be indistinguishable; and although the rock type is a common one, the presence of similar inclusions in both supports their community of origin. This, in our opinion, would be established beyond doubt if a comparison were made with a specimen of basalt from Abu Za'bal, the alternative source. To this end we are sending Mr. Lucas specimens of Fayyûm basalt." Ed.]

[1] G. Caton-Thompson, see reference No. 12, Table I.

[2] G. Caton-Thompson in *Antiquity*, I, 331, and in *Journ. Royal Anthrop. Inst.*, LVI (1926), Pl. XXXV, Fig. 1, No. 4.

[3] Beadnell, *op. cit.*, 61.

[4] Barron and Hume, *op. cit.*, 52, 263.

[5] *Op. cit.*, 26.

[6] A. E. P. Weigall, *Travels in the Upper Egyptian Deserts*, 106, 107.

### Breccia.

A red and white breccia and another with little or no red colour are found abundantly on the west bank of the Nile in several localities, for instance, north of Miniah, near Asyût, at Thebes and near Esnah. A red and white breccia also occurs in the eastern desert[1]. There is no evidence to show from what source the small amount of this stone required for the few predynastic vessels was obtained, but the balance of probabilities is strongly in favour of the Nile Valley cliffs, where it occurs plentifully.

### Diorite.

The particular kind of diorite used for the few predynastic vessels made of this material was a speckled variety, in which the component minerals (white felspar and black hornblende) are fairly evenly distributed, the banded, mottled and often slightly translucent varieties not being used, so far as is known, until Dynastic times. Diorite occurs near Aṣwân, in the eastern desert and in Sinai[1], and, although in the eastern desert it is largely developed in the hills north of the Ḳenah-Ḳoṣêr road and was worked in Wâdî Semnah (north-west of Ḳoṣêr) by the Romans[2], there is no evidence of earlier working. Aṣwân, where the speckled variety similar to that used for the predynastic vessels is known to occur[3], and where another stone (granite) was being worked from an early date, seems the most probable source of the predynastic supply. Sinai, although a possible source, appears very unlikely and no record of any stone-working in Sinai is known to the writer[4].

### Granite.

Granite, including both the red and black-and-white varieties and also syenite, is very widely distributed in Egypt[1], but, as all kinds occur near Aṣwân and were worked there in early Dynastic times, it appears highly probable that it was from this source that the granite for the few predynastic vessels was obtained. The only other granites known to have been worked anciently are the red granite of Wâdî Foakhir[5] (a continuation of Wâdî Ḥammâmât, between Ḳenah and Ḳoṣêr), the date of the working of which is unknown but probably late (Weigall says Roman)[6], and the black-and-white granite quarried by the Romans at Mons Claudianus[7].

### Limestone.

As the cliffs bordering the Nile Valley from Cairo to a little beyond Esnah, a distance of about 500 miles, are of limestone, which includes almost every kind and colour, except possibly black, there is no need to look elsewhere for the source of the limestone used for the early vessels, even those of Predynastic date.

The colours of the limestone used for the predynastic vessels comprise white, grey, yellowish, pink and black, the three first mentioned being very common colours in limestone and occurring in most limestone areas; pink and black limestone, however, are less usual and may be specially considered. Pink limestone has been noted in several places

[1] See Table II.
[2] Barron and Hume, *op. cit.*, 221, 265.
[3] J. Ball, *The Aswan Cataract*, Pl. v (2).
[4] See p. 207.
[5] Barron and Hume, *op. cit.*, 265.
[6] Weigall, *Travels in the Upper Egyptian Deserts* (1909), 50.
[7] Barron and Hume, *op. cit.*, 39, 264.

in the eastern desert[1], but it is not necessary to go so far afield as this, since some of the limestone of the Nile Valley also weathers pink[2], one example being that of the walls in the tomb of Tutʿankhamūn[3]. A black crystalline limestone occurs near the convent of St. Antony in the eastern desert[4], where at some period it has been worked, and also in the Cairo-Suez district[5] and possibly elsewhere. The workings at the convent are not likely to be connected with the few black limestone vessels of Predynastic date[6], since the cutting of such a small amount of material as was required to make these vessels would not leave marks lasting several thousands of years.

### Marble.

So far as is known, marble only occurs in the eastern desert, where it is recorded from several localities[7], a grey saccharine variety from Wâdî Dib (west of Gebel Zêt and fairly close to the coast) and both a white and a colour-banded kind from Gebel Rokham (near the upper part of Wâdî Miah[8], east of Esnah and roughly two-thirds of the way between the Nile and the Red Sea), the latter of which was exploited to a small extent in Arab times[9]. It was doubtless from one or both of these sources that the small amount of marble used anciently was, at least in part, obtained, since a third occurrence in the far south-eastern desert is a very unlikely source. A crystalline limestone, however, that is practically marble occurs in localities other than those mentioned and probably even in the Nile Valley cliffs.

### Porphyritic Rock.

Porphyritic rocks, varying considerably both in the nature and size of the conspicuous crystals and also in colour, are widely distributed in Egypt[10] and occur near Aṣwân, in the eastern desert and in Sinai. Although this material was used in the Predynastic period for making vessels, it was not employed to any great extent, the particular variety generally chosen being black and white (white crystals in a black matrix). There is no evidence to show from where this stone was obtained, though it was almost certainly either from Aṣwân or from the eastern desert, and, as the latter offers more opportunities, it seems the more probable source. Sinai, although possible, appears unlikely, chiefly because most of the other stones employed for the predynastic vessels can be shown, with a high degree of certainty, to have been obtained elsewhere, some of them from the eastern desert; had one kind of stone been obtained from Sinai, it seems probable that others, also, would have been procured from the same place. Further, no record or trace of stone-working in Sinai can be found at any period, whereas in the case of the materials that did come from Sinai (copper ore and turquoise) records and proofs of the mining exist. In the hope of obtaining direct evidence on the problem, the porphyritic rocks in the Cairo Geological Museum have been carefully examined, but no specimen identical with the stones employed anciently could be found, though Dr. Hume informs me that similar rocks do occur in the eastern desert.

[1] Barron and Hume, *op. cit.*, 167, 169, 170, 177.
[2] *Op. cit.*, 171.
[3] A. Lucas in Carter, *The Tomb of Tut-ankh-Amen*, II, 164.
[4] Hume, *Explan. Notes to Geol. Map*, 47.
[5] Barron, *Cairo-Suez District*, 27, 99, 100, 101.
[6] Petrie, *Diospolis Parva*, 19.
[7] See Table II.
[8] Wâdî Miah enters the Nile Valley near Edfu.
[9] J. Barthoux in *Mém. de l'Inst. d'Égypte*, V (1922), 33.
[10] See Table II.

### Schist.

There are many varieties of schist, but that used by the ancient Egyptians was principally a fine-grained, compact, hard, crystalline, quartzose, metamorphic rock, very like slate in appearance and generally of various shades of grey, ranging from light to dark, with sometimes a greenish tint. The term schist is also here used to include tuff (volcanic ash), mudstone and slate. The former is a fine-grained, bluish-grey, crystalline stone, consisting of consolidated volcanic ash, which is sometimes calcified, that is to say, has undergone alteration resulting in the formation of calcium carbonate as one of the products. Mudstone, which is a compact clay rock, is probably the material for which Petrie coined the term "Durite"; he describes it as an "indurated mud or ash, which is of the composition of slate but without a slaty fracture[1]." Slate is generally a hard, fissile clay-schist, though slate formed from volcanic dust and not from clay is known. Schist occurs in various localities in Egypt[2], being particularly plentiful in the neighbourhood of Wâdî Ḥammâmât on the main road between Ḳenah and Ḳoṣêr, where there are ancient quarries that were worked certainly in the Fifth Dynasty[3] and probably earlier. Weigall found one inscription stated to be of the First Dynasty[4]. Slate occurs in the low hill region to the west and north-west of Ḳoṣêr; at Gebel Mongul (west of Gebel Zêt) and elsewhere in the eastern desert[5].

### Serpentine.

The serpentine employed anciently was almost necessarily obtained from the eastern desert[2], since no other Egyptian source is known. A green variety occurs in Wâdî Umm Disi[6] (which is situated between Wâdî Ḳenah, into which it opens, and the Red Sea) and at the foot of Gebel El-Rebshi[6], and a black variety in Wâdî Sodmên[6], both these latter places being north-west of Ḳoṣêr. In the far south-eastern desert serpentine is much more plentiful and covers an area of about 400 square miles[7]. Steatite, which is very similar in composition to serpentine, is found at Hamr near Aṣwân[8] and at Gebel Fatirah[8] (about the latitude of Taḥtah, but much nearer the coast than the Nile). In the former locality there are ancient mines, and the mineral is still worked at the present day by the local "Arabs," who fashion it into bowls and pipes.

It would be valuable if we could determine what proportion of the vases made consisted of each kind of stone, but this is hardly possible, as some of the archaeological reports concerned do not give the number of vessels of the different materials. The following table includes all that can be found. Although figures from reports published earlier than Petrie's *Prehistoric Egypt* are given in cols. *e–k*, these are not included either in the totals or in the percentages, as they have probably already been incorporated by Petrie. The sources of the figures given in the nine columns *a–k* are indicated immediately after the table.

[1] Petrie, *Amulets*, 8.

[2] See Table II.

[3] J. Couyat and P. Montet, *Les inscriptions hiéroglyphiques et hiératiques du Ouâdi Hammâmât*, in *Mém. de l'Inst franç. d'arch. orient. du Caire*, XXXIV (1912), 122, 123.

[4] Weigall, *Travels in the Upper Egyptian Deserts*, 39.

[5] Barron and Hume, *op. cit.*, 217–8, 221, 226, 238, 264.

[6] *Op. cit.*, 265.

[7] J. Ball, *South-Eastern Egypt*, 320–30.

[8] Mines and Quarries Dept., *Report on the Mineral Industry of Egypt* (1922), 37.

TABLE III.

| Stone | *a* | *b* | *c* | *d* | Total | % | *e* | *f* | *g* | *h* | *k* |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Alabaster | 27 | 16 | ... | 4 | 47 | 17·0 | ... | 2 | 5 | ... | ... |
| Basalt | 47 | 1 | ... | 9 | 57 | 20·0 | ... | 9 | 3 | ... | 1 |
| Breccia | 14 | 1 | 1 | 2 | 18 | 6·5 | ... | 2 | 3 | ... | 2 |
| Diorite | 1 | ... | ... | ... | 1 | 0·5 | 1 | ... | ... | ... | 1 |
| Granite | 7 | ... | ... | ... | 7 | 2·5 | ... | ... | ... | ... | ... |
| Limestone | 83 | 4 | ... | 15 | 102 | 36·0 | 1 | 6 | 1 | 2 | ... |
| Marble | 14 | ... | ... | 1 | 15 | 5·0 | ... | 1 | ... | ... | 1 |
| Porphyritic rock | 5 | ... | ... | 1 | 6 | 2·0 | ... | ... | ... | ... | ... |
| Schist | ... | 6 | ... | 4 | 10 | 3·5 | ... | 1 | ... | ... | ... |
| Serpentine | 19 | ... | ... | ... | 19 | 7·0 | ... | ... | ... | ... | ... |
| | 217 | 28 | 1 | 36 | 282 | 100·0 | 2 | 21 | 12 | 2 | 5 |

*a*. Petrie, *Prehistoric Egypt* (1920), 35, 36: Pls. xxxiv–xlii.
*b*. R. Engelbach, *Haraqeh* (1923), 14.
*c*. C. M. Firth, *Arch. Survey of Nubia, Rpt. for* 1910–1911 (1927), 192.
*d*. Brunton and Caton-Thompson, *The Badarian Civilisation* (1928), 28, 57, 58; Pl. li.
*e*. J. E. Quibell and F. W. Green, *Hierakonpolis*, II (1902), Pl. lxiv.
*f*. MacIver and Mace, *El Amrah and Abados* (1902), 16–24.
*g*. G. A. Reisner, *Arch. Survey of Nubia, Rpt. for* 1907–1908 (1910), 116, 119, 125, 128.
*h*. Ayrton and Loat, *El Mahasna* (1911), 11, 16.
*k*. E. Naville and others, *Abydos*, I, 14; Pls. ii, iii.

The information in Tables II and III may now be combined in tabular form. The percentages can only be regarded as a rough approximation.

TABLE IV.

| Stone | Fayyûm, Nile Valley, Aswân | E. Desert |
|---|---|---|
| Alabaster | 17·0 % | ... |
| Basalt | 20·0 | ... |
| Breccia | 6·5 | ... |
| Diorite | 0·5 | ... |
| Granite | 2·5 | ... |
| Limestone | 36·0 | ... |
| Marble | ... | 5·0 % |
| Porphyritic rock | ... | 2·0 |
| Schist | ... | 3·5 |
| Serpentine | ... | 7·0 |
| | 82·5 % | 17·5 % |

A statistical summary showing the Sequence Dates of the occurrence of the different kinds of stone employed for the predynastic vessels would be most useful, but unfortunately is not possible, owing to the absence in the archaeological reports of sufficient data. The following table, however, has been compiled.

TABLE V.

| Early Predynastic[1] | Middle and Late Predynastic |
|---|---|
| Alabaster[2,3,5,7] | Alabaster[3,4,6,7] |
| Basalt[2,3,5,6,7,10] | Basalt[3,4,6,7] |
| Breccia[3,4,5,6] | Breccia[2,3,7] |
| ..... | Diorite[2,9] |
| Granite[2,4] | ..... |
| Limestone[2,5,6,7,8] | Limestone[2,3,6,7,8] |
| Marble[3] | Marble[3,7] |
| Porphyritic rock[2,4] | Porphyritic rock[3,6] |
| ..... | Schist[2,6,7] |
| ..... | Serpentine[2,3,4] |

Putting together the information contained in Tables IV and V, it is evident that the stones employed for making vessels during the early Predynastic period included, not only the comparatively soft alabaster, breccia and limestone, but also the slightly harder marble and the much harder basalt, granite and porphyritic rock, and that by far the greater proportion of these stones was obtained from the Fayyûm, the Nile Valley cliffs and Aṣwân, only two (marble and porphyritic rock) being probably procured from the eastern desert. During the middle and late Predynastic periods, most of the stones used were identical with those of the earlier period and were doubtless obtained from the same sources, but, in addition, three kinds (diorite, schist and serpentine) not used earlier, so far as is known, were also employed. Of these, diorite and schist are hard and serpentine soft, the diorite being probably procured from Aṣwân and the schist and serpentine from the eastern desert.

Certain statements found in the literature of archaeology having reference to the early stone vessel industry may now be quoted. These are:

"But as early as S.D. 38 a fresh influence came in.... Its origin has been provisionally assigned to the Red Sea district as it introduced hard stone vases...[11]."

"The home of this second civilization must have been mountainous by the supply of stone instead of clay for vases...[12]."

"Petrie has rightly insisted that the home of the stone vase industry can ultimately only be sought in the mountains between Egypt and the Red Sea where all the stones used for the purpose do actually occur...[13]."

[1] Includes Badarian and Neolithic.

[2] Petrie, *Diospolis Parva*, 19.

[3] Id., *Prehistoric Egypt*, 35, 36; Pls. xxxiv–xlii. In this report Sequence Dates are given for the different types of vessels, but for only a few of the materials. Among these, the breccia vessel (No. 167; Pl. xli) and the pink marble vessel (No. 174; Pl xli) may specially be noted, as both these are early, namely S.D. 34 (p. 36).

[4] Petrie and Quibell, *Naqada and Ballas*, 10.

[5] G. A. Reisner, *The Early Dynastic Cemeteries of Naga ed-Der*, I, 129.

[6] *The Badarian Civilisation*, 28, 57, 58; Pl. li.

[7] *El Amrah and Abydos*, 16–24.

[8] *El Mahasna*, 11, 16.

[9] Although not employed for vessels in the earliest age, diorite was used for other purposes, both in the early Predynastic period and even in Neolithic times, a disc mace-head and a worked piece (probably part of a palette) of these respective dates being known. (*Prehistoric Egypt*, 23; Pl. xxv (6); Caton-Thompson in *Journ. Royal Anthrop. Inst.*, LVI (1926), 313.)

[10] Caton-Thompson; see reference No. 12, Table I.

[11] Petrie, *Egypt and Mesopotamia*, in *Ancient Egypt* (1917), 33.

[12] *Prehistoric Egypt*, 48.

[13] A. Scharff in *Journal*, XIV (1928), 273.

"The only definite indication as to their home is the fact that their most characteristic contributions to the prehistoric civilization are the stone vases and their pottery imitations; and the region which is most likely to have bred people knowing how to work stone and which is near enough to Egypt to allow permanent intercourse with the Nile Valley...is the Arabian desert along the western shore of the Red Sea[1]."

The above statements are contrary to the evidence that has been adduced, which points to the home of the stone vessel industry being, not in the eastern desert, but in or near the Nile Valley, whence the greater proportion of the material was obtained, two of the three principal stones, alabaster and limestone, being typical of the Nile Valley, and the third, basalt (which was one of the earliest[2] and hardest stones used), being obtained almost certainly from the Fayyûm.

As a rule, the Nile Valley people of the present day dislike and fear the desert and the desert dwellers, and rarely leave the valley unless obliged. In certain districts, however, a comparatively small number, in order to gain a livelihood, are forced to make daily excursions into the desert border to collect gypsum for plaster, limestone for building and lime-burning and nitrous earth for their crops. Anciently, conditions were very different, and during the Predynastic period the inhabitants of the Nile Valley were not the specialized agriculturists they have now become, but were in part hunters and akin to the desert dwellers; there can be little doubt that many of them were in the habit of going considerable distances into the desert to hunt animals for food and skins, and it was possibly during these expeditions that the earliest gold and other minerals, including semi-precious stones, were found in small quantities and brought back to the valley. There was constant intercourse, too, between the Nile Valley and the Red Sea coast, as is proved, for example, by the Red Sea shells that are found in the earliest graves. These wanderings in the desert in search of game and this intercourse with the Red Sea could hardly have failed to bring the hunters and others into the localities where the few stones (marble, porphyritic rock, schist and serpentine) that were procured from the eastern desert occur, most of these places being either on or about the Koptos-Ḳoṣêr road or in or near the large wadys leading from the Nile Valley.

It should not be forgotten, too, that not only was stone (including hard stone) employed for making vessels, but that it was also used, even in the earliest Predynastic period, for palettes and mace-heads, the earliest palettes being of slate and the earliest mace-heads (disc form) being of the very stones (soft alabaster, breccia and limestone, and hard diorite, granite and porphyritic rock) that were used for vessels[3], and wherever the home of the stone vessel industry may have been, there also was the home of stone mace-heads and stone palettes.

The fact that stone objects are made by certain desert "Arabs" at the present day is sometimes quoted[4] as evidence of the eastern desert origin of the stone vessel industry, but it has no bearing on the problem. Thus, the stone employed by these people for making bowls and pipes is steatite, a material so soft that it may be cut with a knife, and it is obtained from the neighbourhood of Aṣwân[5].

[1] H. Frankfort, *Studies in Early Pottery of the Near East*, I, 100.
[2] See reference No. 12, Table I; also *The Badarian Civilisation*, 28.
[3] *Prehistoric Egypt*, 23; Pl. XXV.
[4] Frankfort, *op. cit.*, I, 101.
[5] Mines and Quarries Dept., *Report on the Mineral Industry of Egypt* (1922), 37.

## Conclusion.

The Nile Valley dwellers from the earliest period made and used vessels and other objects of stone (some very hard), most of which was procured from the Nile Valley cliffs, Aṣwân and the Fayyûm[1]. The few stones from the eastern desert that were employed to a very limited extent may easily have been procured by the inhabitants of the valley in their excursions into the desert in search of game, gold and minerals. There is no need, therefore, to postulate a desert stone-vessel-making race and there is no evidence of any break in the continuity of the stone vessel industry, but only evolution and progress, more kinds of stone being used and more vessels being made as time passed, until the culminating point in numbers, material and workmanship was reached in the early Dynastic period.

[1] There is no evidence to show whether the predynastic basalt vessels found in the Nile Valley were made in the Fayyûm, or whether occasionally some of the Fayyûm basalt in use in the valley for building and other purposes was there shaped into vessels.

# THE CEMETERIES OF ABYDOS: WORK OF THE SEASON 1925–26[1]

By H. FRANKFORT

With Plates xxx–xl.

## II. Description of Tombs.

In publishing the results of our cemetery work we must, of necessity, revert to a method which can nowadays but rarely be justified: we shall merely describe the tombs which contained objects or information of sufficient importance to make a full record of the circumstances of the finding desirable. The cemetery-work in the season of 1925–26 was entirely subsidiary to our main task, the final investigation of the Cenotaph of Seti I; the number of tombs opened was thus comparatively small, and these were scattered all over the site, in almost a dozen separate patches of ground, which were left over between the bigger areas excavated by our predecessors Mariette, Petrie, Garstang and Peet. Thus the modern method, in which all tomb-groups, without exception, and all objects found are coordinated and dealt with statistically, could not be expected to yield any results, for the material was both too scanty and too varied; and a full publication would have put an unjustifiable strain on the resources and the space of the *Journal*. The few results, moreover, which materially added to our knowledge by supplying new and valuable dating-evidence are already incorporated in an outstanding recent publication, in which the modern method is both lucidly explained and rigorously applied: Mr. Guy Brunton's *Qau and Badari*[2].

Mr. Brunton gives us, for the first time, an unbroken series, based on several thousands of carefully recorded interments, which shows the gradual change of burial rites and tomb furnishing from the predynastic period down to the Twelfth Dynasty. It would have been interesting to produce a parallel series from Abydos and to see to what extent the two were identical. But such an undertaking would have to take the results of previous excavations into account, and would therefore be hardly possible so long as those of Professor Garstang's campaigns remain unpublished, while it would in any case far exceed the scope of a mere publication of our finds. The evidence of these, as far as it goes, points to a complete agreement with the observations made at Ḳâw. The types of tombs and the attitudes of the bodies are in the following always indicated by the numbers of Mr. Brunton's indexes in *Qau and Badari*, I, Pls. xxiv and xxv.

The characteristics of the tombs themselves, and especially their superstructures, are not so well known from Ḳâw, and can often be better studied at Abydos. They are discussed by Peet in *The Cemeteries of Abydos*, and to his remarks we have nothing to add.

[1] See *Journal*, XII, 143; XIV, 235.

[2] Especially pp. 7, 21.

### Pre- and Protodynastic Period.

The tombs of this period were found on the high ground immediately south of the northern expedition house. The types of pots and slate palettes are numbered after Petrie, *Prehistoric Egypt Corpus*, the attitudes of the body after Brunton, *Qau and Badari*.

**1730.** This was an undisturbed grave, 1·00 by 1·20 m., and about 1·00 deep, azimuth 130°. The body was that of an adult woman, lying in a tightly contracted position on its left side with head towards the south, facing eastwards (attitude 2A″). It was covered with reed matting. A few pots, amongst them a small short cylindrical one of mud, were standing near the head. The others were placed against the western edge of the grave or in the south-west corner. The following types could be "sequence-dated":

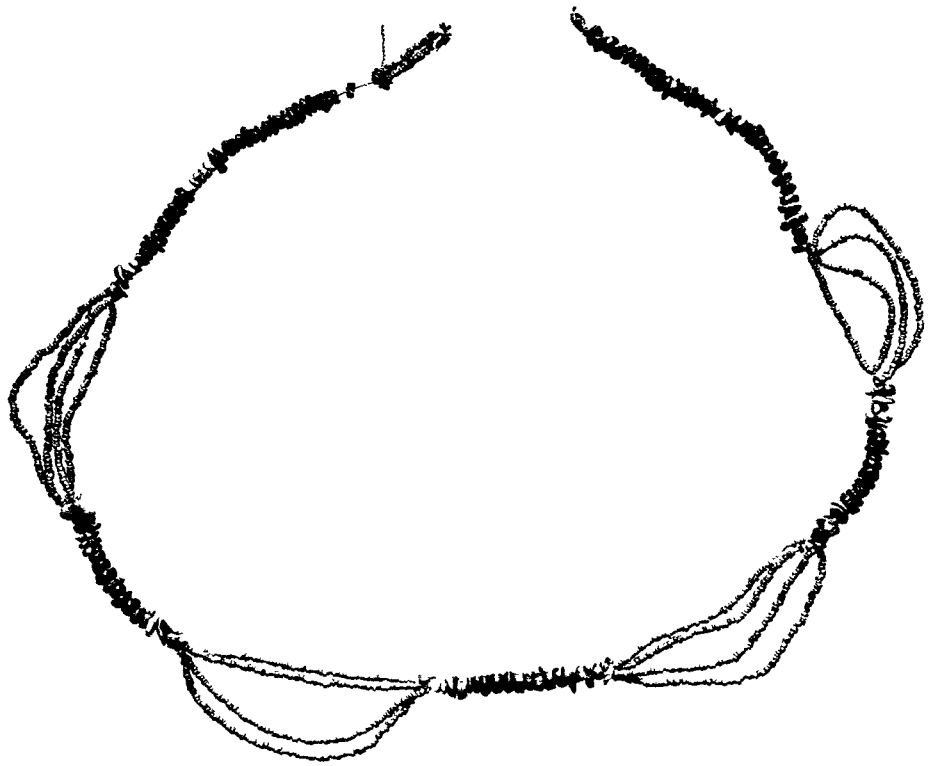
| | | |
|---|---|---|
| 1 red-on-buff pot | D 4a | S.D. 49 |
| 1 black-topped saucer | B 11e | 36–63 |
| 1 black-topped egg-shaped pot | B 68a | 37–61 |
| 3 black-topped vases | B 53a | 38–66 |
| 1 red unpolished pot | R 85g | 36–72 |
| 2 red unpolished pots | R 65b | 47–65 |
| 1 red saucer | L 7a | 53–58, 78 |
| 2 tall rough-faced pots | R 76j (Ḳâw) | 52–59 |

There were also one red-on-buff and one rough-faced pot which could not be dated. Thus the interment should be placed between S.D. 53–58, well in the latter part of the second predynastic period, but before the new influences became manifest which led up to the early dynastic period (S.D. 63). The red-on-buff and the black-topped pots were wrapped separately in matting. Near the hands there was a flint knife (Pl. xxxi, fig. 3), traces of copper or malachite, and minute particles of what seemed to be lead. The most remarkable object, however, was a diadem, in exquisite taste, which is shown in Pl. xxx, fig. 1, restrung in the original order. The soil, at this spot, is particularly rich in salt, and this had preserved the skin and incrusted the hair of the scalp, and the minute beads had stuck to this crust, though the thread was gone. At the back of the head there had been the string only, which disappeared under the tresses; the beaded part in front went from ear to ear, and seemed to hold a piece of cloth like a veil over the face of the woman. Four strings of tiny gold beads alternate with groups of garnet enclosed by four or five turquoise beads at each end. With the turquoise there are a few green glazed beads, while some of the garnets look very much like spinel rubies. The gold beads are made in rather a primitive way: the gold was apparently beaten out into a sheet, which was then cut up in narrow strips which were cut across in small fragments, and these were curved round till both ends met. The beads appear thus to consist of tiny bits of flat gold wire. This group is now in the British Museum. For the pottery see Pl. xxx, figs. 2 and 3.

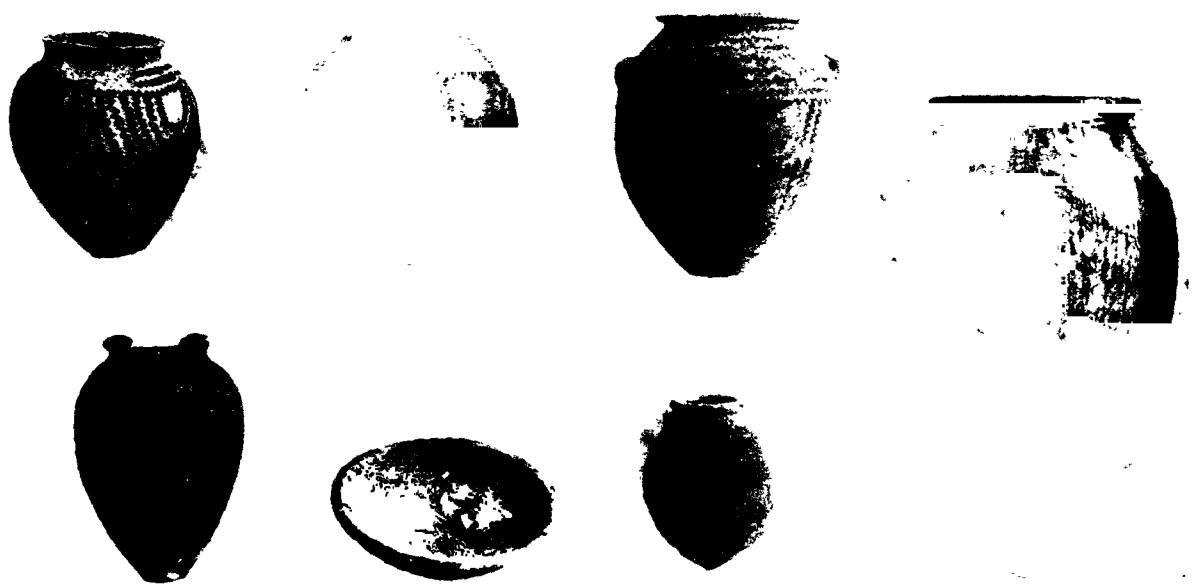
The other tombs in this section belong to the protodynastic period, *i.e.*, to the very end of the predynastic period or to that of the first dynasties.

**1606.** Oblong grave, no bones left. Fragments of small, narrow "barrel-shaped" stone vase and fragments of black-topped and red polished pottery. Two L 31b pots, and one W 47m. Fragments of small rough dish with malachite. Fine obsidian knife (Pl. xxxi, fig. 1) which is now in the Cambridge Archaeological Museum.

**1624.** Oblong grave; of the body there remained only the pelvis and legs of an adult woman which suggest attitude 3D″. Apparent traces of a wooden coffin. At the north end of the grave stood five pots R 86p and one W 47m; near them was the leg of an



1



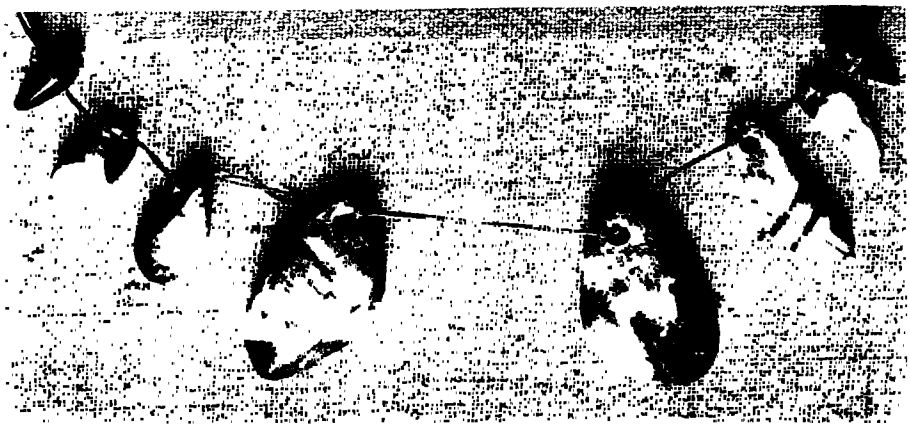
2 3

Abydos. Tomb 1730.

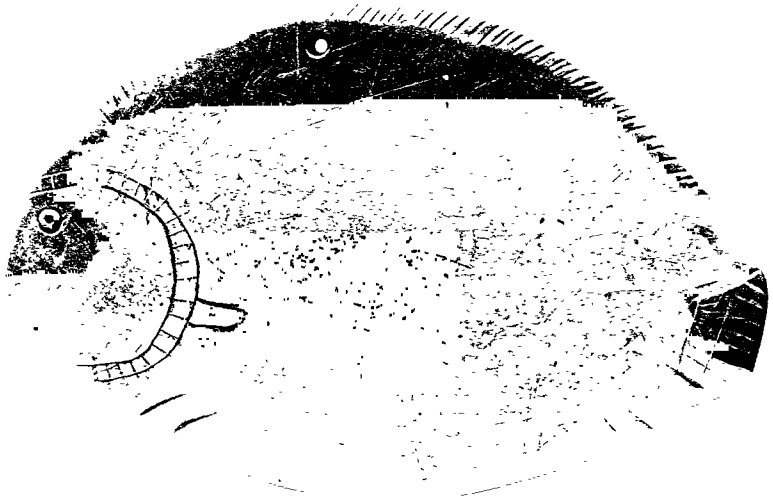
1. Diadem of gold, garnet and turquoise beads. *Scale c.* ½.
2, 3. Pottery *Scale c.* ½.



1



2





3



4

Abydos.

1. Obsidian knife from 1606. *Scale c.* $\frac{1}{4}$.
2. String of pendants from 1725. *Scale c.* $\frac{1}{4}$.
3. Flint knife from 1730. *Scale c.* $\frac{1}{4}$.
4. Fish palettes from 1629 (above) and 1627 (below). *Scale* $\frac{5}{8}$.

ox. Between the two shins was placed a slate palette of type 57H, but of more debased form. In front of the pelvis there were two stone vases: one squat type of grey limestone (Peet, *Cemeteries of Abydos*, I, Pl. ii, 9, middle; Scharff, *Abusir el Meleq*, Pl. xxii, 173), and a bowl of porphyry, type 141, in which was found an ivory spoon.

**1725** (Pl. xxxi, fig. 2). Oblong grave, no bones left. There were found the following pots: R 86p; R 40d 2 (Ḳâw); R 76p; R 24m; R 75; and D 48c without decoration; and furthermore 6 pierced pebbles and 2 black limestone(?) "hammers," now in the British Museum.

The two following graves are described here to show once more the error of the widely spread belief that stylistic merit in itself provides dating-evidence. Though it is true, in general, that a short period of strongly creative work is followed by a long one of decay, it is unsound to apply this principle to isolated instances and thereby to define their place in a chronological series. The fish palette of 1627 (Pl. xxxi, fig. 4, bottom), though fragmentary, is one of the finest known; the outline of the face, the place of the eye, the shape of the gill are excellently rendered. That of 1629 (Pl. xxxi, fig. 4, top) is a stiff if elaborate conventionalization. Yet both graves are, as the contents show, contemporary, and there is no reason to believe that the better palette is an heirloom from an earlier period, for a specimen from Abuṣîr el-Meleḳ, which is, again, contemporary with our two palettes, combines features of both of these (Scharff, *op. cit.*, Pl. xxxi, 295).

**1627.** Oblong grave, with only a few fragments of bones left, one of which bears traces of malachite or coppergreen. There were 8 pots of type R 86p; 2 of W 47a: 4 of R 24a; 1 of B 53c, and 1 of L 17n. The fragment of the fish palette (Pl. xxxi, fig. 4, bottom) shows traces of rubbing, and malachite adheres to it. With it were two ignaceous pebbles as rubbers. This palette is now in the Rijks-Museum van Oudheden, Leyden.

**1629.** Undisturbed grave, measuring 1·70 by 0·75 m., and 1·32 deep. Azimuth 95°. Traces of coffin (reed?). Attitude 3D″, skeleton of an adult person; the sex could not be determined. There were 2 pots W 53; 3 W 47a; 2 R 86p; 1 I 53v. This last pot and a slate palette (Pl. xxxi, fig. 4, top) were in front of the face; the others were lying along the southern edge of the grave and in the north-west corner. Round the neck there was a string of carnelian and green glazed beads, strung alternately. The palette is now in the Chadwick Museum, Bolton.

### Fifth Dynasty.

In the high ground on the very edge of the necropolis, above the path which skirts the cultivation, there was a small group of tombs of the Fifth Dynasty, left over from Mariette's work. They lie about halfway between the Government rest-house and the Kôm es-Sulṭân, and they were obviously left because only men were buried in this patch of ground, and therefore the clearing of the neighbouring shafts and chambers must have taught the workmen of Mariette that on this particular spot their hard labour did not produce the reward in objects which in those days justified excavations. In all points Brunton's observations at Ḳâw are borne out, except that the chambers of these tombs do not adjoin their shafts lengthways (*Qau and Badari*, I, Pl. xxiv, nos. 1–4) but with a short side, such as is usual with the later tombs with sloping chamber (*ibid.*, nos. 31 ff.) or in the earlier stairway-tombs of the Second and Third Dynasties. The chamber is on the local south or north of the shaft (azimuth 140°). The remains of the superstructures could not be disentangled because of the innumerable later graves and the havoc wrought by the previous excavation. It was therefore uncertain to which tomb belonged:

**910** (Pl. xxxii, fig. 1). *Serdab* of mud brick, dome-shaped, standing for a height of 0·80 m. on a round cutting in the desert surface, which is 0·50 deep, and measures about 1·00 in diameter. When found the dome was not closed at the top, and whether it ever had been so could not with certainty be decided, though it is, of course, likely. The bricks measured 0·28 by 0·13 by 0·075. Three wooden statues stood inside, but they were so badly ant-eaten that they collapsed at the end of a day, which two members of our party spent in an attempt to save them by strengthening them with paraffin wax, as they were gradually uncovered. Only the head of the right-hand statue survived, and it is now in the British Museum. The sand on the left-hand side of the photograph was seen later on to cover a third statue, which had been broken off above the ankles, presumably by falling bricks. In contrast with the other two this wore the broad outstanding wig, and remains of a *sekhem*-staff were found near it. The height of the face was 0·11, that of the figure approximately 0·75. The base measured 0·50 by 0·20 by 0·10; those of the other two 0·65 by 0·25 by 0·10, and 0·58 by 0·18 by 0·10. As far as we could make out all were uninscribed. Against the north side of the wall of the *serdab* (right-hand side of photo) there stood two pointed pots, closed with caps of mud, but empty (Pl. xxxii, fig. 2). This *serdab* may have belonged to either of two tombs described below (915 or 918).

**915.** Square shaft, 1·10 by 1·10 m., and 4·80 deep, with chamber on the north, measuring 2·95 by 1·60 by 1·10, in the western half of which stood the coffin, just as is the case with the earlier stairway tombs (Brunton, *Qau and Badari*, I, 44); it measured 1·50 by 0·60 by 0·25. The wood was 0·05 thick, and covered with white plaster. The body was that of an adult male, in attitude 6D. Against the west wall of the chamber, near the entrance, stood a beautiful bowl of "red sealing-wax" ware, 0·45 m. in diameter, two smaller bowls of the same ware and type (*Qau and Badari*, Pl. lxxvi, 13B), and a "bread pot" (*ibid.*, 6R). Against the opposite wall were placed a pointed pot (type 62 P) and the leg of an ox, while a "red sealing-wax" ware pot of type 80 H was found in the filling of the shaft. The interment had never been disturbed, for the shaft was sealed, as it were, with a second interment, which I think to be contemporary, and the position of which affords interesting proof of the survival at this date of a most primitive mode of burial. This interment is:

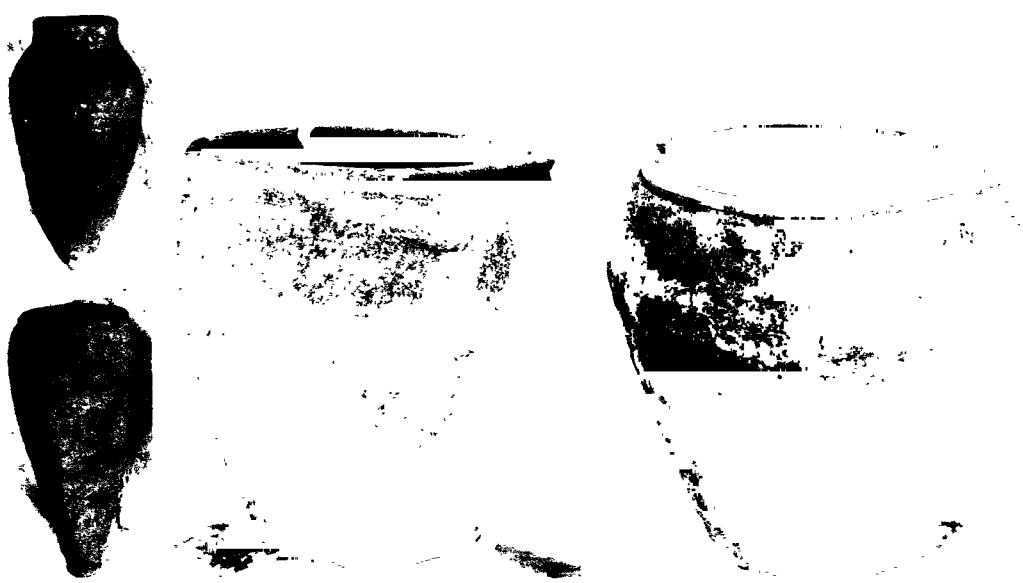
**916.** Pot-burial, a large vessel (Pl. xxxii, fig. 4) being placed over the body of a male adult person; the bones had slipped down a little, and were lying in some confusion underneath the pot, perhaps as a consequence of the settling of the soil subsequent to the burial. It was certainly not disturbed in any way. This interment was found almost at the very top of the shaft of 915, in its eastern half, and immediately above there was found a row of 7 rough pointed pots (Pl. xxxii, fig. 3). Obviously this interment must be later than 915 or contemporary with it. As it cannot be much later and as it would have been difficult to insert the pot-burial so neatly into the top of the shaft as long as the superstructure of 915 was in anything like good repair, and as this, in fact, would have entailed more labour than we may assume was spent on poor burials of this kind, I feel inclined to think that the pot-burial was contemporary with that in the chamber below, and was therefore made before the superstructure was closed; it may perhaps be a last survival of the custom so common in the Royal Tombs of the First Dynasty by which servants were, willingly or unwillingly, sent with their masters to the realm of death.

**918** (Pl. xxxiii). This deep tomb, though badly plundered, yet produced important results, its type and its contents being dated by a mud sealing with the name of Unas. The shaft measured 1·50 by 1·50 and was 10 m. deep. The bricks measured 0·28 by 0·15 by



1

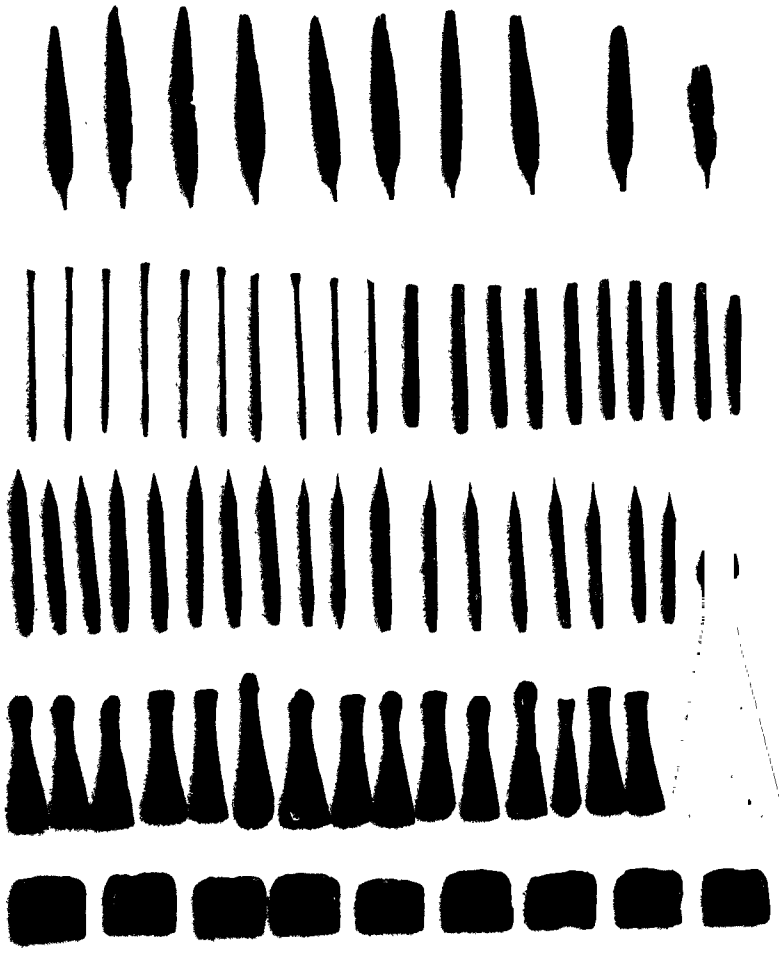
2



3 4 5

Abydos.

1. Serdab of 910 *Scale c.* $\frac{1}{8}$.
2. Pot from Serdab of 910.
3, 4. Pot and burial-jar from 916. *Scale* $\frac{1}{4}$ *and* $\frac{1}{10}$ *respectively.*
5. Burial-jar from 1726. *Scale* $\frac{1}{10}$.



1

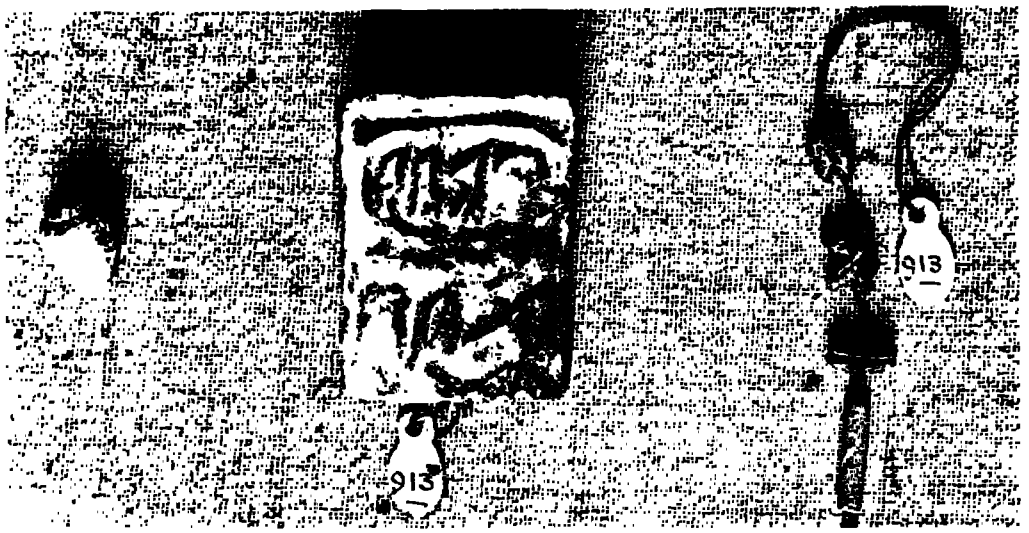


2

Abydos.

Model tools and censer of copper from Tomb 918

*Scale c.* ½.




1



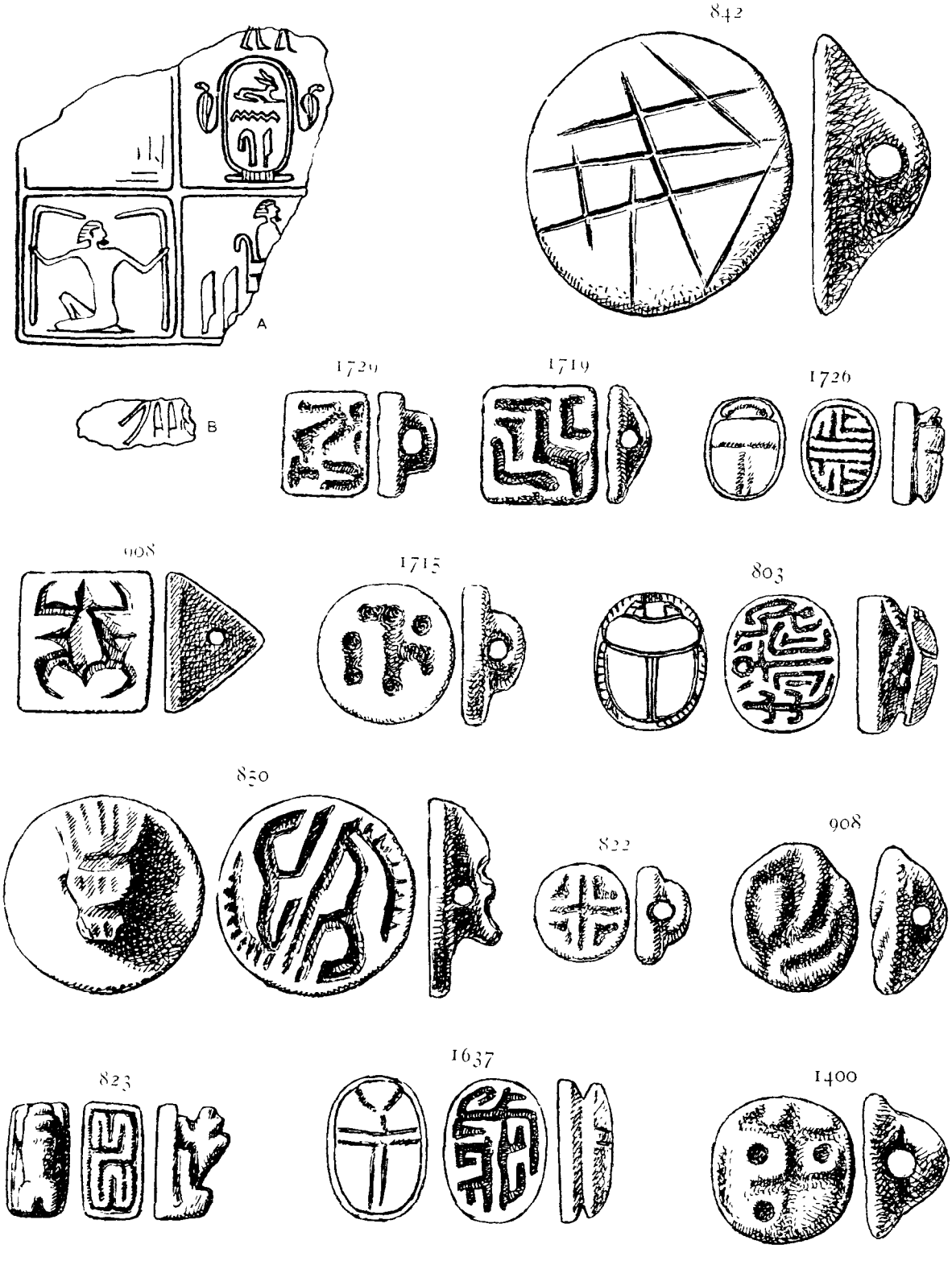
2



3

Abydos.

1. Beads and glazed plaque with the name of Pepi I from 913. *Scale c.* $\frac{1}{1}$.
2. Amulets from 829. *Scale c.* $\frac{1}{1}$.
3. Beads and glazed quartz pendants from 1755. *Scale c.* $\frac{1}{1}$.




Abydos

Mud sealing from Tomb 918 (A-B) and seal-amulets from various tombs

*Scale* $\frac{1}{1}$.



1



2

Abydos.

1. Pots from 1735. *Scale c.* ½.

2. Amethyst beads, green-glazed hawk-amulet, and silver hawk from 1607. *Scale c.* ⅓.

0·08. The chamber, to the south of the shaft, measured 3·65 by 2·15 by 1·85 and was floored with limestone slabs. No trace of body or coffin was discovered, but along the east wall of the chamber there ran a ledge which was but incompletely robbed of the funerary offerings which had been deposited upon it. There was left a standard set of models, containing 8 groups, each of 9 or 10 identical tools, namely 9 axes, 9 daggers, 9 round-headed adzes, 9 straight-headed adzes, 10 straight chisels, 10 splaying chisels, 9 narrow punches and 9 broader punches. In addition there was a full-size round-headed adze, three model bowls, one model plate and a full-size incense burner with lid, all of copper (Pl. xxxiii). In the filling of the chamber were found the mud sealing (Pl. xxxv, figs. A and B), the bottom of a rough pointed pot, and some small bones, possibly of a hare or rabbit. The seal bore perhaps the name of the owner, which would then have been, probably, Unasshepsy; the animal above the cartouche seems to be four-legged (Set?). This group is now in the British Museum. The censer was figured in *British Museum Quarterly*, Vol. I, Pl. xxxvi *a*.

### Sixth Dynasty.

**913** (Pl. xxxiv, fig. 1). Close by the tombs of the Fifth Dynasty there was a shallow oblong grave, undisturbed, without pots, and with a very decayed adult skeleton, in attitude 8A or 8A9, the sex of which could not be determined. In it was found a plaque of light blue glaze, with perforations at the back suggesting that it was stitched on to material or worn as a pectoral. It bears the names of Pepi I, *viz.*, Meryrēʿ Merytauy. When the contents of the grave were sieved two beads, a shell and two amulets of a debased type were found, one of which finds its place in Mr. Brunton's series as a beetle (*op. cit.*, type 40K6) and the other, perhaps, amongst the dogs and lions. This group is now in the British Museum.

**1735** (Pl. xxxvi, fig. 1). This tomb lies to the south of the protodynastic tombs, to the west of Cemetery E which Peet dug in 1909–10. The shaft measured 2·65 by 0·75 m., the chamber, which lies on the south, 2·20 by 0·75. The shaft is 3·20 deep; azimuth 135°. The skeleton was that of an adult man, in attitude 8D9. Near the feet was found a set of three pots, which were covered with a black mottled glaze, obviously imitating the effect of bronze. There were moreover pellets of clay imitating the rivets above the spout of the jug. A similar jug and basin were found by Peet (*Cemeteries of Abydos*, I, 21 and Pl. ii, 5 and 8). In our case there was also a *ḥes*-vase, not usually found in so early a context (Brunton, *Qau and Badari*, II, 6; Mace, *Naga ed Dêr*, II, 46). This group is now in the Cairo Museum.

### First Intermediate Period.

The tombs of this period lie partly to the south, partly to the west of Cemetery E. The types of beads and amulets are all numbered after Mr. Brunton's corpus in *Qau and Badari*.

**1755** (Pl. xxxiv, fig. 3). A shallow oblong grave, in which the tightly contracted skeleton of a woman was found in attitude 2A. Round one wrist was a string of very debased green glazed amulets (types 15B27; 73A6 and 12; 74C5; 74F6; etc.). Round the neck there was a long string of green glazed ring beads. In the middle of the string there were, separated by carnelian beads, four quartz pebbles, glazed green, and not pierced, but provided with loops of the green glaze itself. The beads leave no possibility of doubt as to the date of this interment, and this adds interest to the unique pendants as well as to the attitude of the body in the grave. On this late survival of the burial in contracted position see Brunton, *op. cit.*, I, 52. This group is now in the British Museum.

**829** (Pl. xxxiv, fig. 2). Shallow grave, in which a supine fully-extended skeleton was found, the sex of which could not be defined. The amulets were found when sieving.

There remain to be discussed a number of shaft-tombs of this period which contained seal-amulets, *i.e.*, "button-seals" and early scarabs, a class of objects which show Asiatic affinities in their designs and which may well have been instrumental in bringing about the transition from the cylindrical rolling seal of pre-Middle-Kingdom days to the scarab-shaped seals, though many of them were not seals but amulets. The seal-amulets which we found were drawn by Mrs. Winifred Brunton, whose drawings are reproduced in Pl. xxxv. They were found, as at Ḳâw, in tombs containing nothing else (803; 823; 842; 850; 908; 1729) or only a few round-bottomed pots (*Qau and Badari*, II, Pls. lxxxiii ff.) or beads (822; 853; 1637; 1715; 1719). They were worn round the neck and, as a rule, by women; in four instances the sex could not be determined, in one, discussed below, they were worn by a man. The bodies were lying in the supine, fully-extended attitude 8F11 (822; 823) or, more often, in the older attitude on the left side with knees slightly bent (7G9). The tombs have mostly no chamber and the body lies at the bottom of a shaft; exceptions, with chamber on south and north respectively, are 1715 and 1719.

In two cases remains of a squared mud wig were found (Peet, *Cemeteries of Abydos*, II, 43 and Pl. vii, 4); both were women, lying in the older attitude but wearing scarabs, one (803) on the finger, apparently, the other (1637) on a long string of the typical black and green glazed beads round the neck.

One early scarab was even found with a pot-burial.

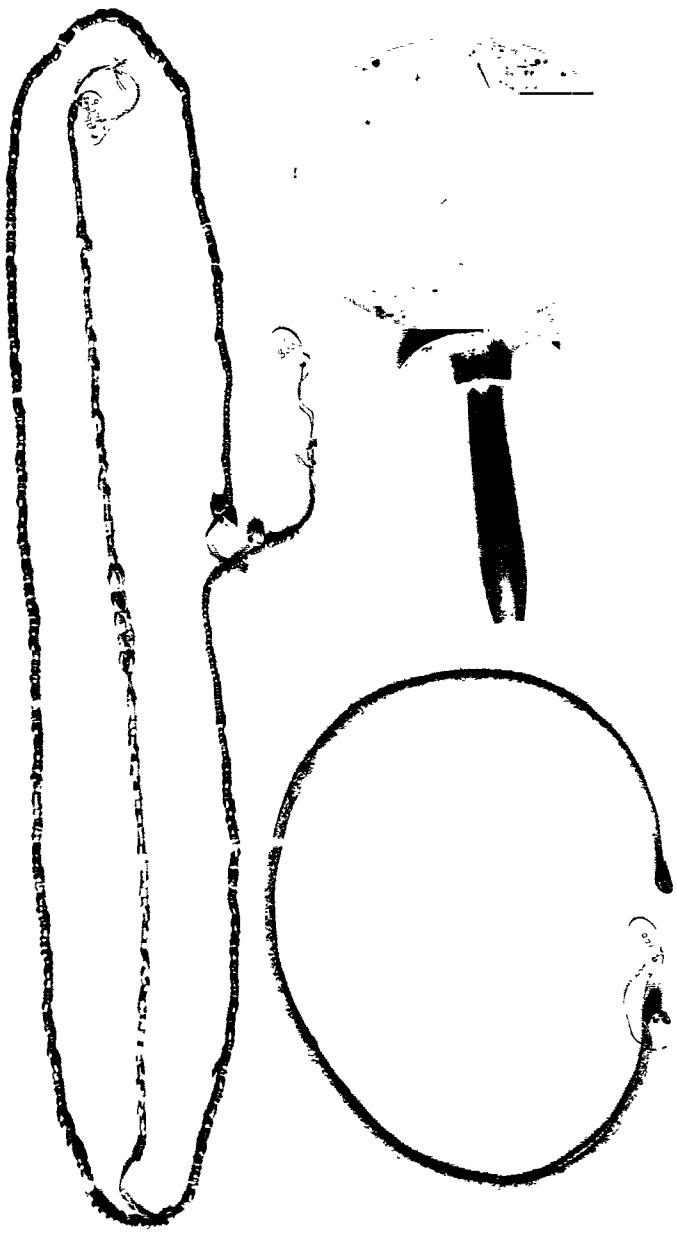
**1726.** Underneath a large pot (Pl. xxxii, fig. 5) the contracted body of an adult woman was found, the head lying towards the south, the face towards the east. It is, of course, possible that the body had fallen over and had originally been put upright underneath the pot. This is the more probable as the orientation with the head towards the south is very unlikely at this period. Three pots stood outside against the jar which served as a coffin (Types 27H; 35N; 35O from *Qau and Badari*, II, Pl. lxxxiii). The scarab was found in sieving.

**908.** Oblong shallow grave in which there were traces of a white plastered coffin, measuring 1·80 by 0·55 by 0·45. The orientation is unusual (azimuth 225°) the head being to the local west, face to the north, the body almost supine, so that the bent knees were standing up. The skeleton is recorded as male, and near the hands were found two seal-amulets. As to the use of the seal-amulets by men see Brunton, *Qau and Badari*, I, 58.

**1715.** Undisturbed shaft tomb. Shaft measured 2·45 by 0·90 by 4·20; chamber, on the south, 2·20 by 0·90 by 0·85, azimuth 128°. Traces of wooden coffin containing the skeleton of an adult woman in attitude 7B6. In the shaft there was a pot of type 65L. Round the neck were two long strings of blue- and black-glazed beads, the two colours being on separate strings. In front of the blue string were carnelian beads, interspaced with blue ones, and in the middle was the carnelian seal-amulet. Round the wrist there was a string of small blue-glazed ring-beads with carnelian and glazed schist barrel- and cylinder-beads.

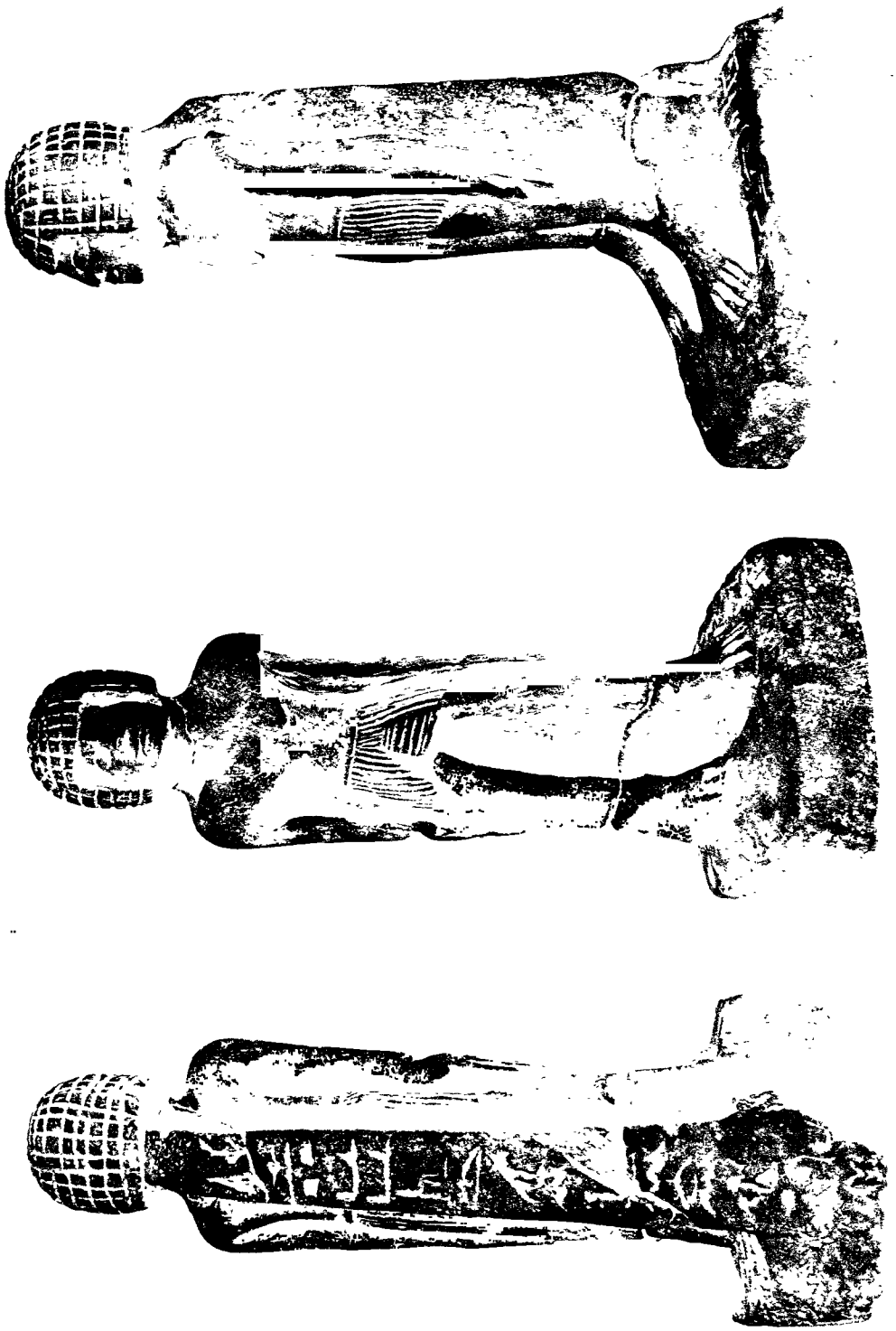
The seals of this period are divided as follows:

Cairo Museum: 803; 850.
British Museum: 822; 823; 853; 908; 1726; 1729.
Leyden Museum: 842; 1719: 1637.
San Diego, U.S.A.: 1715.



Abydos.

Beads, silver torque and copper mirror from 1008. *Scale c.* ⅔.



Abydos.
Statuette of Renseneb.
*Scale c. ¼.*




13

Abydos.

Pottery, stone vases (5) and scarab (7) from the tomb of Rensenb.

*Scale*. *No.* 7, $\frac{1}{2}$ ; *rest c.* $\frac{1}{6}$.




13

Abydos.

Pottery, stone vases (5) and scarab (7) from the tomb of Rensenb.

*Scale No. 7,* $\frac{1}{2}$ *: rest c.* $\frac{1}{6}$



1



2

Abydos.

1 Bronze jug, ivory plate and mirror from 1407. *Scale* $\frac{1}{3}$.

2 Glazed bowl of Ptolemaic date. *Scale* $\frac{1}{11}$.

### Middle Kingdom.

A number of Middle Kingdom tombs were excavated, and produced a fine series of bead-necklaces and some good scarabs. All these have, however, been published over and over again in excavation memoirs. The two following tombs deserve special notice:

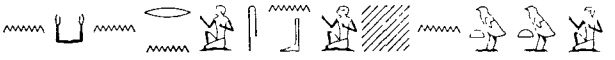
**1607** (Pl. xxxvi, fig. 2). Oblong shallow grave, azimuth 125°, trace of wooden coffin containing the skeleton of an adult person (sex undetermined) in attitude 8A. Round the neck were found amethyst beads and glazed hawk-pendants, and a fine silver pendant in the shape of a hawk with the double crown. This group is now in the Leyden Museum.

**1008** (Pl. xxxvii). This grave was found immediately next to the road which runs along the cultivation, and about 500 yards to the north of the temple of Ramesses II. It contained the supine extended skeleton of a young woman, lying with head towards the east and face upwards. Besides the bronze mirror and the beads, a silver torque was found round her neck. The beads included garnet and carnelian "barrels" and a number of cylinders of gold and silver leaf, and 1 silver and 4 gold cowries. The importance of this tomb-group lies in the presence of the torque, an ornament common in the Caucasus region and in Central Europe, but rare in Egypt. The one published specimen, a bronze one, from El-Lâhûn, has sometimes been supposed to have come from Hungary, but the recent discovery at Byblos of a hoard which included torques makes an Asiatic origin for the Egyptian finds more likely. The matter is more fully discussed in my *Studies in Early Pottery of the Near East*, II, 149 f. This group is now in the Cincinnati Museum Association, Cincinnati, U.S.A.

### Hyksos Period.

**1802** (Pls. xxxviii and xxxix). A double tomb, to the north-east of the Shûnat ez-Zebîb. The shaft, measuring 2·80 by 0·95, descends for 5·10 m. and has one chamber on the north and one on the south, measuring 4·80 by 2·80 and 4·00 by 1·90 respectively, each being about 1·00 high. Both had been robbed. The pottery and the kohl-pots were found in the shaft. In the northern room were found a glazed bowl, a large earplug of black clay, small bronze tweezers, a scarab and a limestone statuette of Rensenb son of Tutu.

The inscription on the back-pillar is clearly visible in Pl. xxxviii. The base is inscribed:



It is not only the coarse and barbarously proportioned statuette which suggests the Hyksos period, but also the remarkable scarab, with the two crossed birds and the twigs in front of them, designs common enough in Asiatic glyptic but rare or even without parallel in Egypt. The statuette and the scarab are in the Cairo Museum; some of the pottery, types of which are shown in Pl. xxxix, is in the Ashmolean Museum at Oxford.

### Late New Kingdom.

**1407** (Pl. xl, fig. 1). Shallow oblong grave, azimuth 60°, containing the supine fully extended skeleton of an adult woman with head to the north-west. A bronze mirror with ivory handle wrapped in linen and a kohl-stick were found between the knees; near the head there stood the fine bronze jug, the handle of which ends above in a lotus flower; and on the ribs was found the ivory plate. Fragments of a wooden head-rest stood near the feet. This group is now in the British Museum.

This tomb was found immediately to the north of the southern expedition house. In the rubbish on the same patch of ground, not in connexion with any tomb, the magnificent fayence bowl of Pl. xl, fig. 2 was found. It was retained by the Cairo Museum.

# THE ORIGIN OF CERTAIN COPTIC GRAMMATICAL ELEMENTS

By ALAN H. GARDINER

## I. The tense-formative єрє- in Late Egyptian.

In his great work on the Egyptian verb, Sethe discussed (*Verbum*, II, §§ 193–206) the various Late-Egyptian periphrases of the old *śḏm·f* form involving the use of the auxiliary verb  *irí* "make," "do." These he divided into three types, each employing the *śḏm·f* form of  in a different writing, and following this by an infinitive. Such at least seemed to be the position suggested by the facts, the three types in question being (1) , (2)  + nominal subj. +  (no examples with suffix occurring), and (3) . The first of these periphrases Sethe shows to be due to a growing prejudice against forming special *śḏm·f* forms of their own from verbs with four or more radical consonants, as well as from compound verbs or those of foreign origin. It is as though English were to confine forms like *he sits, goes, enjoys* to the simplest and shortest stems, and to employ periphrastic phrases like *he does desiderate, introduce, contravene* for all the longer verbs. I have nothing to add to Sethe's convincing statement of the facts concerning this first type of periphrasis. The second and the third types are, however, much more puzzling, and I must confess that the third offers difficulties which still completely baffle me. My concern in the present article is with the second type, which proves on closer examination to be not at all of the character which Sethe presupposed for it.

From the series of examples enumerated below—they are Sethe's collection supplemented by a few unearthed by myself in the course of a quite unsystematic and incomplete search—it will be seen that in a number of cases far too great to be purely fortuitous the preposition  appears before the infinitive. Reserving the explanation for later, I will now let the evidence speak for itself, beginning with those examples in which the preposition is written. I will only add here that the tense-form  + noun (+ ) + infinitive always has reference to future events.

### A. Examples showing  before the infinitive.

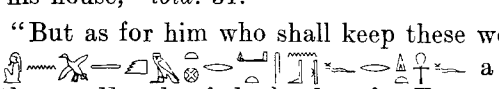
(1)  "the countries which beheld me shall relate concerning my name even unto distant lands unknown," Kuentz, *Bataille de Qadech*, 128, l. 51 [Luxor]. Of the other monumental texts both show  and one has  (*op. cit.*, 84, l. 53), while the second has room [] for the preposition (*op. cit.*, 38, l. 46); *Sallier III*, 7, 1–2 has  but omits .

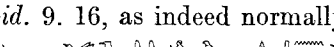
(2) and (3) ["If a great man flee from the land of Egypt...] and they (*sic*) come to the great chief of Khatti,  the great chief of Khatti shall not receive them, the great chief of Khatti shall cause them to be brought to Usimarēʿ-setpenrēʿ," *Hittite Treaty*, 22[1].

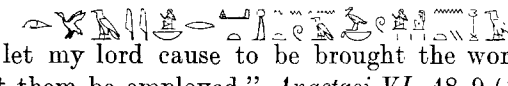
[1] It seems superfluous to quote the defective examples of this construction occurring *ibid.* 12. 15. 16.

*Ibid.* 24 exactly the same sentences occur, but with inversion of Egypt, Khatti and the designations of their rulers.

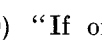
(4)  "As for him who shall not keep them (*scil.* these words) a thousand gods of the land of Khatti and a thousand gods of the land of Egypt shall destroy his house," *ibid.* 31.

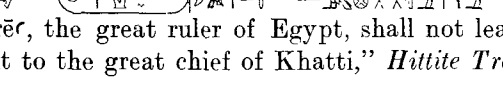
(5) "But as for him who shall keep these words..... a thousand gods of the land of Khatti and a [thousand] gods of the land <of> Egypt shall keep him in health and cause him to live," *ibid.* 32. Here  is clearly the preposition, for the infinitive of *dì* is written , *ibid.* 9. 16, as indeed normally in Late Egyptian.

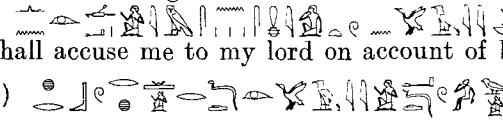
(6)  "let my lord restore (*lit.* give) to me all the wrong done to me," *Brit. Mus. ostr.* 5637, verso 5–6 = *Journal*, XII, Pl. XXXVII. Conclusion of an appeal to the deified king Amenophis.

(7)  "let my lord cause to be brought the work-people who were left in Pernebṯhotp, and let them be employed," *Anastasi VI*, 48–9 (4, 8–9).

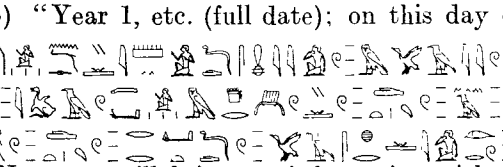
B. EXAMPLES WITHOUT  BEFORE THE INFINITIVE.

(8) and (9). These numbers are used to designate the second clauses in (2) and (3), where *r* is omitted before .

(10) "If one or two men of Khatti flee, and they come to the land of Egypt, ..... Usimarēʿ-setpenrēʿ, the great ruler of Egypt, shall not leave them, but he shall cause them to be brought to the great chief of Khatti," *Hittite Treaty*, 25.

(11) "I have given loaves daily to everyone who has been gathered together for the harvest, and I have given ointment to anoint them three times (down) to the (present) month,  no one among them shall accuse me to my lord on account of bread or of oil," *Sallier I*, 5, 3.

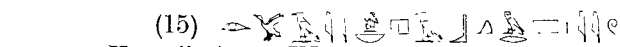
(12)  "I did not know that my lad would come to thee, indeed I sent him to Sekhem-paḥti; (otherwise) I would have caused a letter to be brought to thee by his hand," *Pap. Bologna* 1086, 6–8.

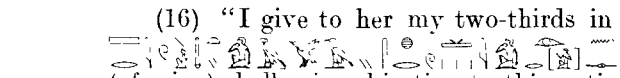
(13) "Year 1, etc. (full date); on this day examination of the thieves..... against whom the chief of police Nesamūn will bring an information with their (full) list of names (he it was who stood there with the thieves when they laid hands on the portable shrines) and who will be castigated(?) by the examination[1] of their feet and hands to cause them to state exactly what they did," *Pap. Mayer A*, 1, 3–5[2].

[1] The usual sinister euphemism.

[2] In the publication Peet (doubtless with my own approval) rendered *ir ḫry Mdy* etc. by "whom the chief of police had denounced" and *nty ḥr·tr* etc. further down by "whose feet and hands were flogged in

(14)  "let my lord put an end to these words which the Mayor of Thebes has spoken," *Abbott*, 6, 19–20.

(15)  "let my lord write <to> the steward Yupa," *Anast. VI*, 80 (=6, 8).

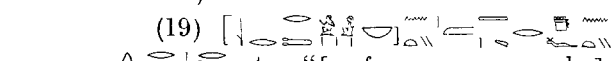
(16) "I give to her my two-thirds in addition to her one-eighth,  and no son or daughter (of mine) shall raise objection to this action which I have taken on her behalf on this day," *Pap. Turin* 2021, 3, 13–4, 1 = *Journal*, XIII, Pls. xiv, xv.

C. EXAMPLE WITH  BEFORE THE INFINITIVE.

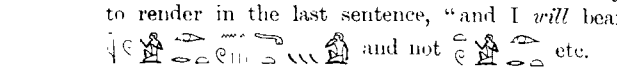
(17)  "may Prēʿ Ḥarakhti grant thee to enjoy (*lit.* make) a long life," *Anast. V*, 12, 5–6.

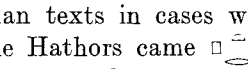
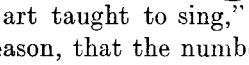
D. EXAMPLES WITH  FOR  AND WITHOUT  BEFORE THE INFINITIVE.

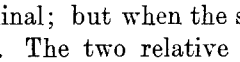
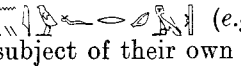
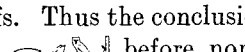
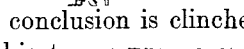
(18)  etc., "as for all [officials?] in any city to whom any people of the House of Menmaʿrēʿ 'Contented-heart-in-Abydos' shall come," etc., *Decree of Nauri*, ll. 114–5 (= *Journal*, XIII, Pl. xliii).

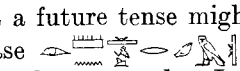
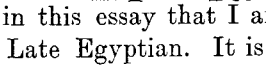
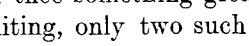
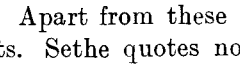
(19)  etc., "[as for any person who] is in the entire land to whom any people of the House of Menmaʿrēʿ shall come saying," etc., *ibid.* 109–10. Griffith shows the sign after  with cross-hatching, but has evidently thought that  is more probable than ; he also rightly points out that *tht* is an obvious blunder for *spr*.

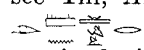
For the moment I have rigidly excluded from my examples all such as present the verb *irí* in any other form than , though including the two early examples (18, 19) where  is substituted for *irí*. [For the later examples of this  see below p. 228.] Taking into account the variant texts noted under (1), the two passages designated (2) and (3), and the double occurrence of  in (5), the evidence before us shows 10 cases of the preposition being written before the infinitive, as against 12 cases without, these last including the one example (17) with . That the example with  is entirely without grammatical significance is clear from the fact that this preposition occurs before the

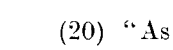
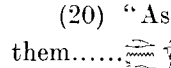
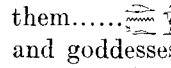
examination." My present investigation having convinced me that the construction with *ir* could only be future (a conclusion confirmed by *nty iw·tw*, see below p. 224, n. 1), I conjectured that the protocol in question must have been written at the very opening of the proceedings, that it was in fact the *procès-verbal* of the trial; only on this hypothesis could the accusations brought by Nesamūn be regarded as lying in the future. In reply to the query I addressed to Peet on this matter I received the following interesting answer: "Though the consequences of your discovery for the opening paragraph of *Mayer A* at first rather startled me, on further consideration I see no difficulty in accepting them. In *B.M.* 10052, which covers earlier dates than *Mayer A*, no reference to the *pr-n-stȝ* trial is made, and it looks indeed as if this only opened at the first sitting recorded by *Mayer A*. Consequently, if we suppose that the scribe wrote these notes actually during the trial, which seems highly probable, it would be natural for him at the outset to head them with a statement in the future, for the prisoners were at that time still to be 'pumped by beating their hands and feet.' As for the sentence concerning Nesamūn you will have noted that in l. 13 he actually appears and denounces the men. This may be literally the *dd smi* which is promised in the relative sentence above. This view would explain the words which I translated (l. 16) 'and I bear witness against them this day,' *i.e.*, I now formally impeach them." The only comment I would add is to say that I would prefer to render in the last sentence, "and I *will* bear witness against them this day," since the text has  and not  etc.

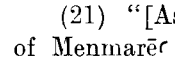
infinitive as a pseudo-archaism in all kinds of Late-Egyptian constructions where etymologically it does not belong (see *Verbum*, II, 249, n. 1; *Journal*, XIV, 92); besides, its isolated occurrence in a single passage would alone be sufficient to prove its lack of significance. On the other hand, the frequent presence of  must necessarily have a good philological reason, the more so since its absence in other examples can to some extent be accounted for. Even if it could be proved that Late Egyptian still retained this  in speech, yet its omission in writing could be explained (1) by the general tendency of Late Egyptian writing to omit prepositions and other small words (*e.g.*, genitival *n*), see Erman's observations *Ä.Z.*, XXXIV, 154; XXXVIII, 4, and (2) by the fact that in Late-Egyptian times the particular preposition  was pronounced *ĕ* as in Coptic, and so might fall under the general rule that vowels were not written in hieroglyphic and its derivative writings. In point of fact, Sethe has shown (*Verbum*, II, § 568, *c*) that  is sometimes omitted in Late-Egyptian texts in cases where its absence from speech would be most improbable, *e.g.*, in "the Hathors came  to see her," *d'Orbiney*, 9, 8;  "thou art taught to sing," *Anast.* IV, 12, 2. But it will be objected, and as it seems with reason, that the number of omissions of  in our construction is too great to be explained along the lines just mentioned. Nor indeed is any such explanation necessary, for we shall soon see that the construction in question is one where Coptic sometimes inserts and sometimes omits the equivalent of  before the infinitive.

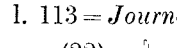
The explanation of our construction leaps to the eyes on comparison of examples no. 2 (or 3) and no. 10, both from the Hittite treaty, an especially old and good Late-Egyptian text. Here we find that  is employed, either with or without following , when the subject is nominal; but when the subject is pronominal (no. 10)  takes the place of .... The two relative clauses in the passage from *Pap. Mayer A* (no. 13) might also be used to point the same lesson, were it not for the awkward parenthesis which makes the passage rather unsuitable as testimony. Further evidence will be found in the Nauri decree, where there are many paragraphs with beginnings of the type  (*e.g.*, ll. 42–3, 50–1, 74–5), and since these relative clauses have a subject of their own (*f*), albeit that subject is identical with the antecedent, they are exact parallels to my quotations (18) and (19), save that here the subject is a noun and not a suffix. The decree of Neskhons will later (p. 228, nos. 28–30) provide additional proofs. Thus the conclusion seems assured that the (or at least *a*) Late-Egyptian form of  before nominal subject is  "so-and-so shall hear," and this conclusion is clinched by the fact that to Coptic ⲉⲩⲉⲥⲱⲧⲙ corresponds, with nominal subject, ⲉⲣⲉ-ⲡⲣⲱⲙⲉ ⲥⲱⲧⲙ or ⲉⲥⲱⲧⲙ.

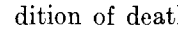
Thus far all is plain sailing, but from this point onwards we shall be confronted by all manner of difficulties and puzzles. What is this ⲉⲣⲉ- which takes the place of ⲉ- when a noun replaces the suffix? One possibility is that  might really be the verb *irí* "do," for it is conceivable that a future tense might be derived from the meaning "X will act so as to hear." In this case  would be a mere *alternative* to . It is a lacuna in this essay that I am quite unable to say how often this latter construction occurs in Late Egyptian. It is of course common in Middle Egyptian (see my *Eg. Gramm.*, § 332) and examples exist from the Old Kingdom, *e.g.*,  "My Majesty will do for thee something great," *Urk.*, I, 131, 1. In *Pap. Beatty I*, which I am now engaged in editing, only two such examples occur, both without *r* before the infinitive (15, 3; 15, 8). Apart from these I know of no examples of  from Late-Egyptian texts. Sethe quotes none in the *Verbum* (II, § 568, *c*, γ), nor does Erman in his *Neuägypt. Gramm.* (§§ 235–7), and I, for my part, simply have not looked

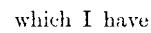
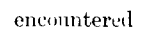
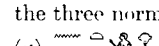
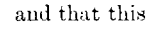
out for them hitherto, and have now failed to discover any in the course of a rather perfunctory search. Still, both Demotic and Akhmîmic would appear to vouch for the continued existence of the two alternatives. Demotic shows writings corresponding to (*a*)  and (*b*)  respectively, see Spiegelberg, *Demot. Gramm.*, § 164, while Akhmîmic has (*a*) ⲁ- ⲁ corresponding to ⲁⲫⲁ, and sub-Akhmîmic (*b*) ⲉⲣⲉ- ⲁ corresponding to ⲉⲫⲁ, see Till, *Akhm.-Kopt. Gramm.*, § 128 and p. 158. Nevertheless, I do not believe that  represents an original "so-and-so will act so as to hear" which has survived side by side with "so-and-so is () towards hearing" in Akhmîmic, but has replaced the latter in Saʿîdic and Bohairic ⲉⲣⲉ- (ⲉ)ⲥⲱⲧⲙ. I lay little stress on the fact that the commoner  is replaced by  in one or both of the earliest examples of the construction (nos. 18 and 19 from the decree of Nauri, *temp.* Sethos I), but I shall now proceed to quote other examples of an alternation between  and , some of which seem to preclude a meaning "shall do" or "shall act" for the latter. The examples in question are all of the same class, belonging to the curses invoked upon infringers of decrees or anticipated critics of unsatisfactory manuscripts. These curses have been collected, though not very completely, by the late G. Möller in his article on the decree of Amenophis, son of Ḥapu (*Sitz. d. kön. preuss. Akad. d. Wiss.*, 1910, 941–8). The examples which concern us are as follows:

(20) "As for whosoever shall interfere () with anyone among them..... to him shall the gods and goddesses be adversaries, .....and as to whosoever shall be deaf to this decree,  Osiris will be (*lit.* is) after him, Isis will be after his wife, Horus will be after his children," L., *D.*, III, 140, *c*, 17–19 (collated) = Möller, D 5 (Sethos I).

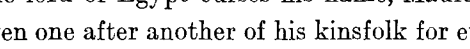
(21) "[As to any person who] is in the entire land to whom any people of the House of Menmarēʿ shall come, etc. etc..... Osiris Khentamenthes, the lord of people and the lord of things, shall be (*lit.* is) after him, after his wife, and after his children," *Decree of Nauri*, l. 113 = *Journal*, XIII, Pl. xliii. No. 19 above is the beginning of this passage (Sethos I).

(22)  "as for him who shall speak against this doctrine (*sbʒyt*) of the scribe Amenkhau, to him shall Thoth be (*lit.* is) an adversary (when) in the condition of death," *Sallier IV*, on the back of *recto*, p. 21.

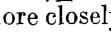
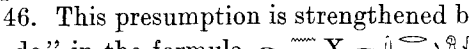
(23)  "as for him who shall speak[1] against this (piece of) writing, to him shall Thoth be an adversary," *d'Orbiney*, 19, 9–10.

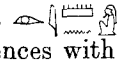
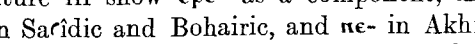
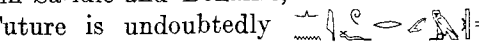
[1] This variant with *ḥr*, so obviously the equivalent of *ỉw·f r mdt* in (22), opens out an important question which I have not the time to investigate at the present moment. Since all cases which I have recently encountered of  refer to the future, and since the rare  also, so far as I can see, invariably refers to the future, I am inclined to conclude that *ḥr* here is spurious, and that where it occurs or where there is no preposition *nty ỉw·f r sḏm* must always be understood. So far as relative clauses are concerned, I believe this view will prove to be sound. I am, in fact, inclined to suppose that the three normal modes of expressing a relative sentence with a subject of its own in Late Egyptian are (*a*)  for *present* time, (*b*)  for *future* time, and (*c*) the relative form (*e.g.*, ) for *past* time. But if it should prove that in  the  is always spurious and that this preposition should be replaced by , new vistas of doubt open out. In that case perhaps even in main clauses  may sometimes be a miswriting for .

(24)  "as for him who shall speak against it, Amen-Rēʿ, king of the gods, shall be after him to destroy him[1], Mut shall be after his wife, and Khons after his child," L., *D.*, III, 229, 19 (collated) = Möller, D 6.

(25) "The lord of Egypt curses his name, Mauray is the abomination of White-Wall (Memphis), even one after another of his kinsfolk for ever,  Binerē-Miamūn shall be after his children, Meneptaḥ-Ḥetpḥimāʿe is given to him as fate," *Israel stela*, 9.

(26)  "O all men and citizenesses who shall come after us and shall speak against Amenemope-mēn, unto him shall Amūn be an adversary as brother of all the people of his city," *Rec. Trav.*, IV, 149 = *Ä.Z.*, XXIX, 49–50.

In commenting on the passage from the Israel stela (25), Spiegelberg quotes the parallels from Redesîyeh (20) and Anîbeh (24) as evidence of a phrase *irt m-sȝ* "to persecute" (*Ä.Z.*, XXXIV, 17). But though such a phrase is possible, the parallelism of  with  in (21) raises a strong presumption that  is some form of , or at least more closely connected with this than with *irí* "to do"; for further examples of *iw m-sȝ* "persecute" and the correlated *wn m-sȝ* Spiegelberg quotes Brugsch, *Thesaurus* 1203, 43 and 46. This presumption is strengthened by the impossibility of regarding  as the verb "to do" in the formula  (nos. 20, 22, 23, 26). "To act as adversary to someone" would in Egyptian necessarily be *irt* (*m*) *irȳ-n-ʿḥȝ r*, and since Egyptian carefully distinguishes between *irt n* "to act on behalf of" a person and *irt r* "to act against" someone, *ir n·f X r irí-n-ʿḥȝ* could only mean "to act on his behalf so as to be an adversary," which is a contradiction in terms. Add to this that the problematic  here illustrated occurs only in exactly the same type of texts, and indeed on two occasions (the decrees of Nauri and Redesîyeh) in the identical texts, where  + nom. subj. + *r* + infinitive also occurs, and there cannot be the slightest doubt but that the word  in both cases is identical.

Perhaps it was in such examples as (20) to (26) above that  = ϵpϵ- began to spread to other tenses than the future. It is not unnatural to suppose that  = ϵpϵ- originally somehow contained an inherent future force, and hence was quickly transferred to such sentences as  which also had future force, but in form were ordinary non-verbal sentences with adverbial predicate introduced by  (see my *Eg. Gramm.*, § 117). This may be the way in which ϵpϵ- before nominal subject, starting in the 3rd Future ϵqϵcωτ̄ⲙ̄, next passed into the Coptic 2nd Present ϵqcωτ̄ⲙ̄, and then into the 2nd Future ϵqⲛⲁcωτ̄ⲙ̄. It is most disconcerting to find that in none of the Coptic dialects does the Negative Future III show ϵpϵ- as a component, the form of this before nominal subj. being ⲛⲁⲛϵ- in Saʿîdic and Bohairic, and ⲛϵ- in Akhmîmic. But the origin of the Coptic Negative Future is undoubtedly  and it is thus in conspicuous disagreement with Coptic that we find  in our nos. 2, 3, 10, 11, and 16.

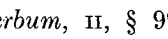
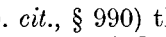
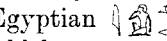
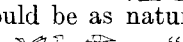
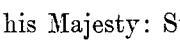
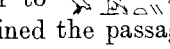
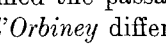
What then is the origin of this troublesome  = ϵpϵ-, which ultimately pervaded Coptic to a far greater extent than I have hitherto indicated? On communicating my discovery to Sethe, he at once suggested an explanation that had already occurred to me,

[1] Probably emend simply *m-sȝ·f*, but the scribe may have had some such reading as *m-sȝ f r sȝsȝ·f* in his mind.

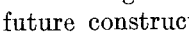
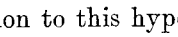
namely that  before nominal subject is due to the adhesion of the preposition  to . The proximity of preposition and auxiliary in ϵϊϵcωτ̄м̄, ϵκϵcωτ̄м̄, ϵqϵcωτ̄м̄ will have suggested a retention of that proximity in ϵpϵ-X cωτ̄м̄, and it is a fact that where Coptic employs ϵpϵ- in Future III, the preposition ϵ- before the infinitive is more often than not omitted, see Steindorff[2], § 289; Stern, § 381. Sethe quotes as parallels the similar transposition forwards of τ̄м̄ in ñτϵ-τ̄м̄-πρωмϵ cωτ̄м̄ beside ñqτ̄мcωτ̄м̄ and of ϣaп in ϵρϣaп-πρωмϵ cωτ̄м̄ beside ϵqϣaпcωτ̄м̄. A still earlier parallel would be the like transposition of subject and negatival complement discovered by Gunn and illustrated in § 343 of my Grammar. It does not seem to be a necessary condition for the validity of this explanation that the preposition *r* should not have been pronounced before the infinitive. As I have said, Coptic hesitates between ϵpϵ-πρωмϵ ϵcωτ̄м̄ and ϵpϵ-πρωмϵ cωτ̄м̄ and Late Egyptian may have done the same, the existence of *iw·f-r śḏm* ϵqϵcωτ̄м̄ being enough to produce *iw-r X* (*r*) *śḏm*, but not enough completely to banish the preposition before the infinitive. It is unfortunate that one can repose no implicit confidence in the Late-Egyptian writings. The presence of *r* before the infinitive in 10 of my examples and its absence in 12 cannot definitely be taken as meaning that the scribe was failing to pronounce the *r* in precisely those cases where it is not written, but was pronouncing it wherever it is written. On the contrary, there can be no doubt that the *r* was omitted in the writing in very many cases where the scribe would have pronounced it, and it may therefore well have been inserted as a supposed historic writing (as *ḥr* so frequently is) in other cases where the scribe would have spoken the sentence without *r*. In this connexion I will mention that *Pap. Beatty I* contains 36 examples of the future construction usually written *iw·f r śḏm* (only 2 of them with nominal subject), and of these 36 only 8 show the preposition ϵ-. Yet so far as the information given in the standard grammars goes, Coptic never uses ϵqcωτ̄м̄ (with omission for ϵ-) in place of ϵqϵcωτ̄м̄, but confines its hesitancy as regards the preposition to the cases where the subject is a noun.

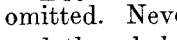
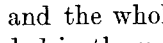
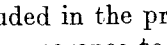
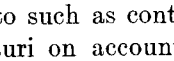
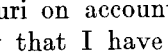
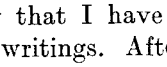
Thus I cannot find the presence of  before the infinitive in examples (1) to (7) any obstacle to Sethe's view that ϵpϵ- may have been the result of the adhesion of the preposition to *iw* on the analogy of the forms with suffix-subject. If I have a partial objection to that view it is on different grounds. Such Late-Egyptian variants as  for  (*d'Orbiney*, 17, 10, quoted below no. 27) and  for imperative  (*Anast. VIII*, 3, 6) prove conclusively that already in the Nineteenth Dynasty the preposition *r* was pronounced ϵ (see too Sethe, *De aleph prosthetico*, 29). Further, the pronunciation of  is shown by such Eighteenth Dynasty writings as  (see my *Eg. Gramm.*, § 272) also to have been simply ϵ. Consequently  would at this period yield, not ϵpϵ-, but ϵϵ. It is very unlikely that the -p- entered in as a mere euphonic addition. Thus while I incline to believe with Sethe that the desire to keep the preposition near the beginning was one of the factors which created the form  = ϵpϵ-, yet I cannot believe that it was the only factor. The really effective factor must, I am convinced, have been the existence of some tense or paradigm of  *irí* "to do," in which the forms with suffix had been reduced to the same pronunciation as , *i.e.*, ϵq (Akhm. aq), while the form with nominal subject was ϵpϵ- or -apϵ. If such a paradigm existed, the coincidence of *ir·f* = *iw·f* = ϵq might have provided a basis for the analogical transformation of  before nominal subject into  = ϵpϵ-.

Now if we cast our eyes over the synopsis of Coptic tenses shown on pp. 158–9 of Till's *Akhmîmic Grammar*, we shall at once recognize certain tenses which originally contained the verb  *irí* "to do" and which may well have provided the required analogy. Such are the so-called Present of Custom ϣaι, ϣaк, ϣaq, etc., with ϣapϵ- before

nominal subject, and the negative form of the same tense, S. меї, мек, etc. = A. маї, мак, etc. = B. ⲙ̄ⲡⲁⲓ, ⲙⲡⲁⲕ, etc., with the forms S. мере- = A. маре- or ма- = B. ⲙ̄ⲡⲁⲣⲉ- before nominal subject. Now of these two tenses the Negative Present of Custom is probably the older, since the prototype of the affirmative form *ḥr ir·f śḏm* seems none too common in Demotic (Spiegelberg, *op. cit.*, § 133). The Negative Present of Custom, on the other hand, goes back to a common and well-authenticated Late-Egyptian tense, namely , see Sethe, *Verbum*, II, § 992, *c*. Perhaps it was this , pronounced ⲉϥ or rather ⲁϥ, and its corresponding form  before nominal subject, pronounced ⲉⲣⲉ- or ⲁⲣⲉ-, which provided the analogy for our paradigm , , , . But Sethe has shown (*op. cit.*, § 990) that the form  in  is simply the common affirmative Late-Egyptian  with the suppression of the prothetic . Such a suppression would be as natural after  as it is after , in the well-known relative construction  "that which he does" in place of . Now it may be mere chance, but it also may not be, that an example with  for  = ⲉⲣⲉ- is forthcoming:

(27) Then the favourite said unto his Majesty: Swear by God,  saying, "what(ever) the favourite shall say, I will obey it for her sake," *d'Orbiney*, 17, 10.

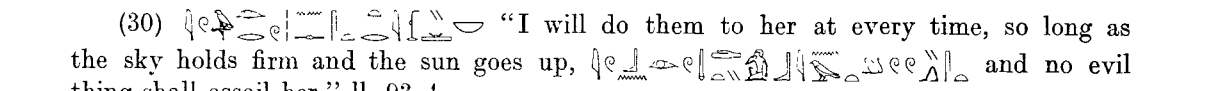
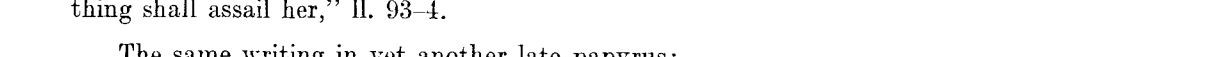
No one with any knowledge of Late Egyptian could fail to see that the construction of the relative sentence here is similar to , and Sethe writes to me that in his classes he has always explained the passage in the same way. In the light of our present knowledge the passage in *d'Orbiney* differs only from the relative sentence in no. 13 () by the substitution of  for  and the retention of  before .

And here we are confronted with a thought which can only be described as a grammatical nightmare. What if all future constructions of the type  "the man shall say" should prove to be mere descendants of the older ? A primary objection to this hypothesis is that such writings are not confined to nominal subject, but that writings with a suffix like  are also common in a future sense. But if, as I think is highly probable,  was pronounced ⲉϥ or ⲁϥ, then there seems no fundamental reason why  should not occasionally be a writing of  especially since *Pap. Beatty I* has taught us how often the preposition may be omitted. Nevertheless, I see great difficulties in the way of the suggestion here made, and the whole question of  is too complex and obscure to me to be included in the present essay.

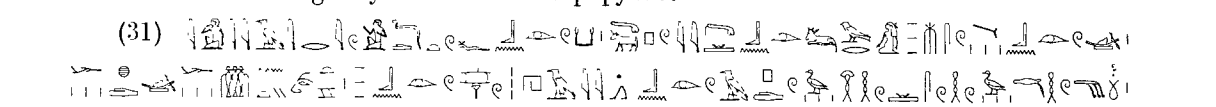
In order to give a more clear-cut appearance to the problem we have been discussing I confined my examples at the start to such as contained the writing , merely adding those with  from the decree of Nauri on account of their age and their parallelism with the cases showing . But now that I have quoted from *d'Orbiney* an example with  I will add a few further writings. After the Twenty-first Dynasty  and  both occur in place of . Examples (28), (29) and (30) are drawn from the Decree of Neskhons, of which there are two copies, one on papyrus, and one on a wooden tablet; for the former see the photographs in Maspero, *Momies royales*, Pls. 25–7, with the new transcription in Golénischeff, *Papyrus hiératiques*, no. 58032, the numbering of which I follow; the variants from the wooden tablet are derived from my collation with a photograph belonging to the Berlin Museum.

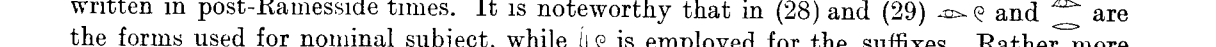
(28)  "I will cause it to be that as for him who is on good terms with the heart of Neskhons and with her soul, her heart shall not turn aside from him, her soul shall not turn aside from him, nor shall he turn aside from Neskhons," ll. 75–7.

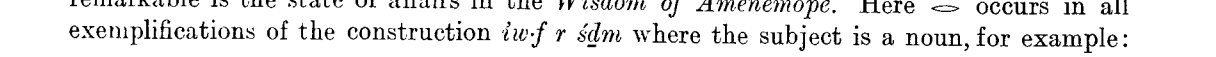
(29)  "and no evil thing of any kind which does wrong to a man or which is bitter to a man shall happen to Painūdjem, nor shall it (*lit.* happen) to his wives or his children or his brethren," ll. 81–3.

(30)  "I will do them to her at every time, so long as the sky holds firm and the sun goes up,  and no evil thing shall assail her," ll. 93–4.

The same writing in yet another late papyrus:

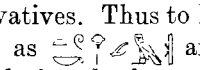
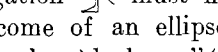
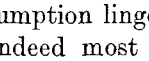
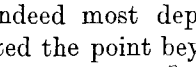
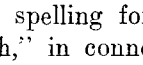
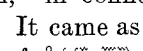
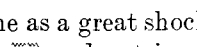
(31)  "Assuredly, if I shall say it, no bull shall copulate, nor pregnant woman bear, nor ship fare up or down stream, nor wind befall, nor birds lay eggs in the nest," *Pap. Boulaq VI*, 11, 4–5 = Mariette, I, 35.

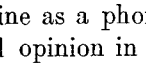
None of these examples possesses much interest except as showing how our **ερε-** was written in post-Ramesside times. It is noteworthy that in (28) and (29)  and  are the forms used for nominal subject, while  is employed for the suffixes. Rather more remarkable is the state of affairs in the *Wisdom of Amenemope*. Here  occurs in all exemplifications of the construction *iw·f r śḏm* where the subject is a noun, for example:

(32)  "God will know how to requite him," 5, 17. *Cf.* too 5, 19 = 17, 16; 17, 1; 22, 8 = 23, 11.

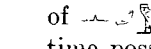
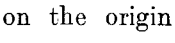
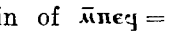
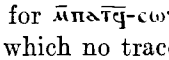
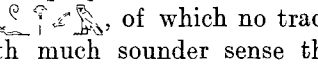
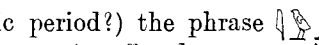
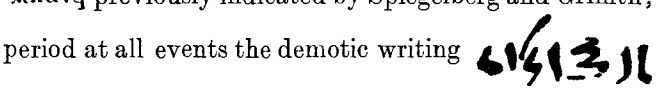
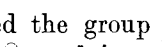
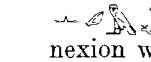
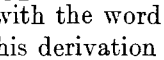
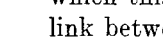
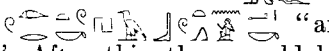
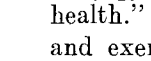
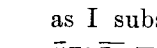
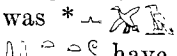
No instances of  + suffix in the same construction seem to occur, but  both with suffix and with noun is common in other uses. This exclusive appropriation of  to the future construction and to cases of it where the subject is nominal clearly prohibits us from regarding it as a mere variant writing of  due to the identity in sound of the preposition and of *iw* at this period. It is, however, strange and inexplicable to me why , which, for the reason just given, serves for *-ĕ* in a number of other cases (see above p. 226 and *cf.* for example  "to you," a true phonetic writing *e-rŏ́-ten*), should in one construction, and one only, serve as *ĕre-*, *ăre-*. I do not think that anyone, after examining and weighing the evidence I have adduced, will put forward the theory that  in our construction is simply a writing of *-ĕ* or *-ă*. If it be asked on what grounds  was taken as a writing of *ĕre-* or *ăre-*, I think one must point to the imperative, which is the only form of the verb  **ειρε** so written in Late Egyptian, apart from the negatival complement in  **ⲙⲛⲣ**. And this agrees very well with the fact that in Coptic the imperative of "to do" is **ⲁⲣⲓ-**, **ⲉⲣⲓ-**.

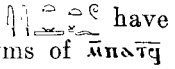
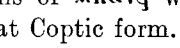
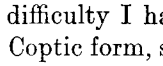
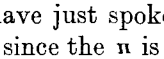
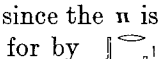
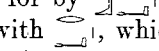
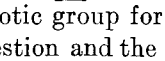
## II. The origin of ⲙⲛⲁϥ, with some remarks on method.

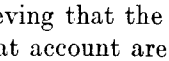
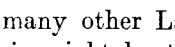
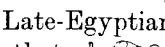
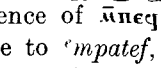
Students of Egyptian grammar have probably not yet realized to the full how radically the most recent investigations have changed the appearance of the Late-Egyptian problem. Until a few years ago it seemed the obvious and the right course to take Late-Egyptian writings at their face-value, and to argue from them both as to their Middle-Egyptian origins and as to their Coptic derivatives. Thus to Erman (*Neuägypt. Gramm.*, §§ 208–222) mere inspection of such writings as  and  must have appeared a sufficiently good reason for placing both constructions under the heading of the "Hülfsverbum *tu*," and to Sethe, in spite of other ingenious and persuasive reasons for his novel view, the spelling of the negation  must have contributed largely to his hypothesis that  is the outcome of an ellipse of , and properly means "< there is no > place (old ) that (*i.e.*, where) he hears" (*Verbum*, II, § 991). But since the two fundamental works here cited were published, both authors, together with other researchers, have made discoveries which go far to undermine the over-simple assumption here criticized. And yet that assumption lingers on, fostered and encouraged by the fact that Late-Egyptian writing is indeed most deplorably misleading. Who would have believed, before Sethe demonstrated the point beyond a peradventure (*Ä.Z.*, LXII, 5), that  could be a Late-Egyptian spelling for  "do not let" as well as for the preposition  *m-dì* "with," in connexion with which Spiegelberg had already (*Ä.Z.*, LX, 59) discerned the truth? It came as a great shock to myself that the conjunctive  proved to be the last relic of  and not in any way, or at the utmost very remotely, connected with the pronominal formative  (*Journal*, XIV, 86). The connexion of  in a particular construction with , as indicated in the first part of the present article, was yet another shock, and has suggested the desirability of our adopting towards Late Egyptian a somewhat novel standpoint, which will in future enable us to bear similar convulsions in our ideas with greater equanimity. The fact of the matter, as I now see it, is that Late Egyptian was habitually and perhaps even wilfully perverse in its methods of spelling. Possibly the primary intention of the scribes was to substitute phonetic writings for the old historic ones. Unfortunately the nature of the Egyptian script was such that phonetic orthography could often not be adopted without the suggestion of a false etymology[1]. Henceforth, accordingly, a new attitude will have to be adopted towards all Late-Egyptian writing. Starting with the end-terms, Coptic and Middle (or Old) Egyptian, we ought to ask ourselves whether the Coptic way of expressing a given meaning agrees with, and can possibly be regarded as the outcome of, the Middle-Egyptian way of expressing the same meaning. If this question be answered in the affirmative, then the suggested Middle-Egyptian original may provisionally be adopted as a working hypothesis, and it will then remain to be seen whether the Late-Egyptian equivalent can be brought into line as a phonetic rendering of that original.

The history of Egyptological opinion in regard to the Coptic tense ⲙⲛⲁϥ-ⲥⲱⲧⲙ admirably illustrates my present contention, and I return to this topic the more readily since I now realize that I have blundered over it not once only, but twice. Twenty-five years have passed since Vogelsang discovered that Middle Egyptian expressed the sense "he has (or had) not yet heard," *i.e.*, the same sense as ⲙⲛⲁϥ-ⲥⲱⲧⲙ, by the construction . This discovery was orally discussed and known in Berlin for several years before it was re-discovered and published by Blackman (*Ä.Z.*, XLIX, 103). The meaning

[1] The substitution of phonetic for the traditional spelling in English would doubtless have for effect merely the obliteration of familiar etymologies, seldom the suggestion of wrong ones.

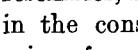
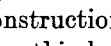
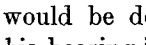
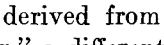
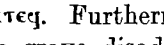
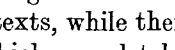
of  was unusual enough to have persuaded Egyptologists, had they at that time possessed the standpoint I am here advocating, to feel morally sure that the Coptic equivalent ⲙⲛⲁⲧϥ, possessing the same meaning and the same ending, somehow exemplified the same form. But this kind of argument was not at that time available, and in my article on the origin of ⲙⲛⲉϥ =  = Middle Egyptian  (*Ä.Z.*, XLV, 73) I proposed for ⲙⲛⲁⲧϥ-ϣⲱⲧⲙ some such prototype as * (=LE ), of which no trace was forthcoming either in Hieratic or Demotic. It was with much sounder sense that Sethe, having found in a late hieroglyphic text (Ethiopic period?) the phrase  "before thou hadst (*lit.* when thou hadst not yet) suffered me to arise (as king)," saw in this the original of ⲙⲛⲁⲧϥ-ϣⲱⲧⲙ (*Ä.Z.*, XLVII, 147). Sethe's conclusion was confirmed by a comparison of this hieroglyphic spelling with the demotic forms of ⲙⲛⲁⲧϥ previously indicated by Spiegelberg and Griffith; Sethe showed that in the Persian period at all events the demotic writing  contained the group . But now Sethe in his turn overlooked the Middle Egyptian , and, interpreting his hieroglyphic example too etymologically, suggested a connexion with the word  "end," "limit," though not without recognizing the difficulties which this derivation presented. It was left for Erman (*Ä.Z.*, L, 104) to find the missing link between the form  and the Coptic ⲙⲛⲁⲧϥ in such Late-Egyptian examples as  "and thou hast not yet written to me concerning thy health." After this, there could be no further doubt that ⲙⲛⲁⲧϥ originated in  and exemplified one of those periphrases with *irí* to which the first part of this article was devoted. It was a singular and regrettable aberration on my part to have maintained, as I subsequently did in a footnote in this *Journal* (XIV, 11, n. 1), that the origin of ⲙⲛⲁⲧϥ was *, for neither of this nor of any Late-Egyptian equivalent * have we any trace, whereas both Late Egyptian and Demotic present synonyms of ⲙⲛⲁⲧϥ which can, if with some little difficulty, be perfectly well equated with that Coptic form.

The difficulty I have just spoken of turns upon the presence of ⲛ and the absence of ⲡ in the Coptic form, since the ⲛ is found neither in  nor yet in , while the ⲡ seems vouched for by . I do not think that Erman has done sufficient justice to the form with , which he considers was due simply to a scribe's misinterpretation of the demotic group for . But there is not much resemblance between the demotic group in question and the contemporary writings of , and I have no doubt, for my part, that the demotic writers were really using the word  pa-. This seems also to be the opinion of Spiegelberg (*Demot. Gramm.*, § 203). Nor does Erman take sufficiently into account Sethe's evidence for an intrusive *p* or *b* after *m* in Coptic (*Ä.Z.*, XLVII, 151). In the production of phonetic facts several causes are often operative, and I see no reason for believing that the analogy of ⲙⲛⲉϥ was the sole cause in the present case.

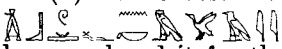
What account are we then to give of ? I am inclined to think that it is, like so many other Late-Egyptian writings, a would-be phonetic spelling. A possible hypothesis might be that  was pronounced *ʿm(b)ratef* with an euphonic *b*, and that under the influence of ⲙⲛⲉϥ = old *n pꜣ·f*, where the *p* was etymological, this pronunciation gave place to *ʿmpatef*, cf. ⲙⲡⲱⲣ from *m-ḫr* and ⲙⲡⲁϥ (Boh.) from . The difficulty in the way of this suggestion is that, as we shall see in the third section of this article, Coptic possesses a form ⲱⲁⲧϥ containing the *śḏmt·f* form of *irí* ⲉⲓⲣⲉ "do," and in that form there is no trace of ⲡ. Hence  in Sethe's passage still remains a

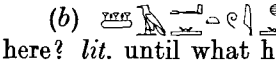
riddle, and all we can say is that it is likely to have some phonetic intention. In any case, it is a sound generalization that Late-Egyptian spelling is on the whole more phonetic than etymologizing, and that we are likely to obtain many interesting new results by adopting that standpoint. The standpoint in question doubtless implies that Late Egyptian is a much more difficult problem than we have hitherto imagined, but if such be the reality, we shall have to face it. Only by a close comparison with Middle Egyptian and with Coptic can the truth concerning any Late-Egyptian construction be ascertained, and the etymologies suggested by Late-Egyptian spellings are to be regarded with the greatest scepticism.

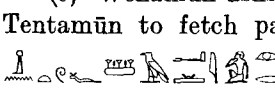
### III. "Until he hears" in Coptic and Late Egyptian.

In dealing with the Coptic conjunctive and its Late-Egyptian equivalent (*Journal*, XIV, 94) I had occasion to touch on that other tense-formative ϣⲁⲛⲧⲉ- ϣⲁⲧⲉ- by which Coptic expresses the notion "until he hears." It was but natural that this formative should always have been regarded as derived from the conjunctive which it so closely resembles, but once the fact had been established that the Coptic conjunctive originated in the construction  it became obvious that ϣⲁⲛⲧⲟⲩ-ⲥⲱⲧⲙ could not have arisen from this by the simple prefixing of the preposition  ϣⲁ. If the relationship of ϣⲁⲛⲧⲉ- and the conjunctive ⲛⲧⲉ- was to be maintained at all, it would have to be less the relationship of child and parent than of brother and brother; the conjunctive would be derived from  and ϣⲁⲛⲧⲟⲩ-ⲥⲱⲧⲙ from * "until his hearing," a different preposition being used in the two parallel constructions. While regarding this solution of the problem as quite possible, I did not fail to point out, as others had done before me, that Demotic and Late Egyptian seemed rather to accord precedence to the form ϣⲁⲧⲉⲕ without ⲛ which Akhmîmic and Bohairic use side by side with ϣⲁⲛⲧⲉⲕ. Furthermore, the suggested derivation from * laboured under the grave disadvantage that not a trace of it was to be found in hieroglyphic or hieratic texts, while there was a passage giving  for "until I have gone" which completely defeated me.

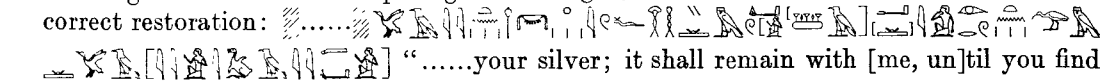
The only Late-Egyptian writing known to me which contains an equivalent of ϣⲁⲧⲉⲕ-ⲥⲱⲧⲙ or ϣⲁⲛⲧⲟⲩ-ⲥⲱⲧⲙ is the story of Wenamūn, where the following examples occur:

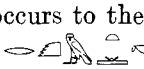
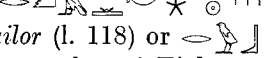
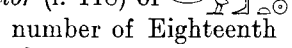
(*a*) "If it were a thief belonging to my land who had come to thy ship..... I would have replaced it for thee from my storehouse, until they should have found thy thief" (1, 19–20).

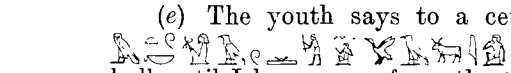
(*b*)  "how long shall I remain cast away here? *lit.* until what has come am I here cast away?" (2, 66).

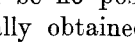
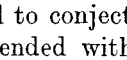
(*c*) Wenamūn asks the prince of Byblos to allow a scribe to be sent to Smendes and Tentamūn to fetch payment for the wood, and adds:  "I will send him to them to say, Let it (the payment) be brought (hither) until I (shall) have gone (back) to Upper Egypt, and (then) will I cause all thy deficit to be brought (*i.e.*, restored) to thee; so said I to him (*i.e.*, such will be my message to Smendes)" (2, 36–7).

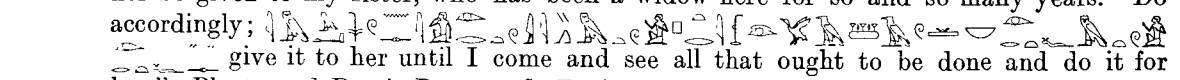
(*d*) Wenamūn has confiscated some silver which he has found, and states that he will hold it until the people whom he is addressing find the thief responsible for the

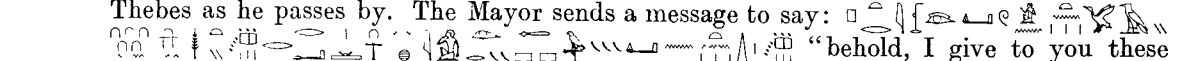
theft against himself. The passage is damaged, but there can be no doubt as to its correct restoration:  ".....your silver; it shall remain with [me, un]til you find m[y thief]" (3, 9).

But now let us leave these four examples for the moment and, following the principle advocated in the second section of this article, ask ourselves how Middle Egyptian would have rendered "until he hears" or "has heard." The construction  with the *śḏmt·f* form at once occurs to the mind (see my *Eg. Gramm.*, § 407, 1), together with such familiar examples as  "until thou hast completed four months" in the *Shipwrecked Sailor* (l. 118) or  "until the sun has arisen over thy breast" on a number of Eighteenth Dynasty tomb-stones. It is undoubtedly a far cry from  to ⲙⲁⲛⲧⲉ-ⲥⲱⲧⲙ, but I hope, before laying down my pen, to make out a very good case for the essential identity of the two constructions. In studying the new Late-Egyptian story contained in *Pap. Beatty II*, I recently came across an idiom hitherto quite unknown to me:

(*e*) The youth says to a certain herdsman: "Take thou such and such articles,  and keep for me the bull until I have come from the town." *Pap. Beatty II*, 7, 5–6.

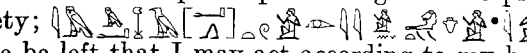
As to the sense there could be no possible doubt, but it was less easy to see how that sense could be grammatically obtained. It seemed not unlikely that  was some form of the suffix conjugation of *ỉrỉ* "do" with the suffix of the 1st pers. sing. omitted as often, and I ventured to conjecture that a preceding preposition  "until" was omitted or had become blended with this verb-form. As regards the verb-form itself, the choice seemed to lie between the *śḏm·f* and the *śḏmt·f*, and I inclined to the former on the ground that the latter would in all probability have been written . Events have proved me to be wrong, for Peet has most generously placed at my disposal a series of examples of  which all proved, on examination, to yield the same meaning "until" as the passage above quoted[1].

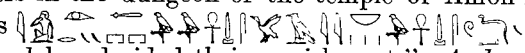
(*f*) "With regard to the letter which thou didst send about thy mother to the effect that she had died, thou saidst, 'Let the contribution which used to be made to her be given to my sister, who has been a widow here for so and so many years.' Do accordingly;  give it to her until I come and see all that ought to be done and do it for her." Pleyte and Rossi, *Papyrus de Turin*, 16, 7[2].

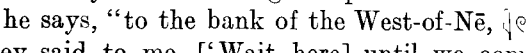
(*g*) The necropolis-workpeople are striking and appeal for rations to the Mayor of Thebes as he passes by. The Mayor sends a message to say:  "behold, I give to you these 50 sacks of spelt for (your) support until Pharaoh gives you rations." *Op. cit.*, 46, 16–17.

[1] Concerning these Peet had gone some little way towards discerning the truth. Commenting on the passage in the tale of the Doomed Prince (*h*) he writes (*Journal*, XI, 338): "I have suspected for some time that there existed in L.E. a periphrasis with a form *ỉ·ỉr·t(w)* bearing strong future meaning." In his forthcoming book on the Tomb-robberies he has actually discerned the meaning "until" in the passage given below under (*k*). I am indebted to Peet for all my examples of *ỉr·tw* with the exception of the two from the Beatty papyri.

[2] For the last clause with *mtw·ỉ* compare the very similar ending of the passage from *Wenamūn* quoted above in (*c*).

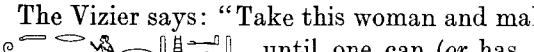
(*h*) The doomed prince protests against the precautions taken by his father to ensure his safety;  "let me be left that I may act according to my heart('s desire), until the god shall perform what is in his mind." *Pap. Harris* 500, *verso* 4, 12–3[1].

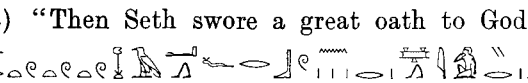
(*i*) "Robbers of this pyramid of this god who are missing concerning whom command was given to the high-priest of Amon-Rasonthēr to have them brought and placed as prisoners in the dungeon of the temple of Amon-Rasonthēr together with their fellow-robbers  until Pharaoh their lord has decided their punishment." *Amherst*, 4, 2.

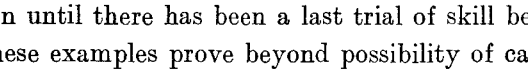
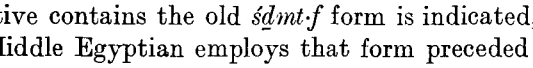
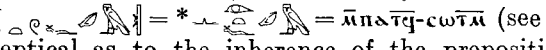
(*j*) A ferryman is making a deposition about the tomb-robberies; "I ferried them over," he says, "to the bank of the West-of-Nē,  and they said to me, ['Wait here] until we come to thee.'" *Pap. Brit. Mus.* 10054, *recto* 2, 3–4.

On this passage Peet remarks that in the lacuna at the end of the line there may be several groups missing, but hardly enough to leave room for *šȝr* as well as for the obvious "Wait here"; he further notes that  for the suffix 1st plur. is common in the Tomb-robberies papyri. As regards this last point see *mtw·n* below in (*m*).

(*k*) For this unpublished example, I give the context in Peet's words. "An 'enemy' has just destroyed *Pr-nbyt*, and the Necropolis is in danger, and Mazoi from all round are drawn in to guard it. The *ḥrỉ-Mȝḏȝỉw Mntw-ms* is mentioned. 'He said to the *ḥwtỉw* of the Necropolis.....  do not go up until ye have seen what will happen.'" *Pap. Turin* 2044, 153.

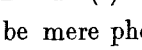
(*l*) The Vizier says: "Take this woman and make her prisoner  until one can (*or* has been able to) get someone to accuse her." *Pap. Brit. Mus.* 10052, 15, 8–9.

(*m*) "Then Seth swore a great oath to God saying:  'They shall not give to him (*scil.* Horus) the kingly office until he has been cast forth together with me and we have built for ourselves some ships of stone.'" *Pap. Beatty I*, 13, 2–4. Seth swears that he will not consent to a judicial decision until there has been a last trial of skill between him and Horus.

These examples prove beyond possibility of cavil that  is a tense-formative of exactly the same kind as ϣⲁⲛⲧⲉ- and with exactly the same meaning. That this formative contains the old *śḏmt·f* form is indicated, on the one hand by the consideration that Middle Egyptian employs that form preceded by  to render the notion "until," and on the other hand by the similarity of the Late-Egyptian writing both here and in  = ϯⲡⲁϯⲣ-ⲥⲱⲧⲙ (see above, section 2). Students who may be sceptical as to the inherence of the preposition *r* "to" in  "until" will perhaps be converted to my view by the use of the same verb-form preceded by the preposition  ϣⲁ- = old  or [2] in the third instance from

[1] Previous translators have rendered "the god will surely do what is in his heart," see above p. 232, n. 1. This makes a good sense, but the rendering here given makes a better.

[2] For *šȝr-r* see my *Eg. Gramm.*, § 179. A form *r-šȝr-r* (cf. *r-mn-m*) occurs in *Pap. Mook*, 2, 1 (Dyn. XVIII) = *Ä.Z.*, LXIII, 106.

the story of Wenamūn (*c*). On this showing, the forms  and  in (*a*) and (*b*) will be mere phonetic writings of  and  respectively, and from them it may be inferred that already in the Twenty-first Dynasty these forms were sounded ϣⲁⲧⲟⲩ and ϣⲁⲧⲉ- as in Coptic.

To return to  once again, this tense-formative may have as subject a suffix (1st plur.  in *j*; 2nd plur.  in *k*; implicit 1st sing. in *e* and *f*), a noun (*g*, *h*, *i*), or the indefinite pronoun  (*l*, *m*). In the case of *l* the writing is a strange one, but  is perfectly clear in the hieratic of the Beatty papyrus, and places the reading in the other case beyond a doubt. The pronunciation may well have been *atětě* and the triple  may be due to a desire to indicate the doubling of the syllable *-tě* at all costs[1].

The history of the Egyptian equivalents of English "until he hears," "until he has heard" now presents itself in a consistent logical development as follows:

(1) In Middle Egyptian  "until he has heard" is employed, with a verb-form which in its other uses appears as a specialized alternative of the *śḏm·n·f* form (*Eg. Gramm.*, p. xxviii, additional remarks in reference to p. 321).

(2) In Late Egyptian, just as old  "he has not (yet) heard" is now replaced by the periphrasis * written  "he has not (yet) done hearing," so too  is replaced by *, written  with graphic suppression of the preposition[2].

(3) Rather later (Twenty-first Dynasty), the preposition  is replaced by the more forceful synonym , old (*r*)-*šȝr-r*, Coptic ϣⲁ. The resultant [3] may also be written phonetically .

(4) The last writing indicates that ϣⲁⲧⲉϥ-ⲥⲱⲧⲙ was the accepted pronunciation as early as the Twenty-first Dynasty and that the form without ⲛ is older than that with it.

(5) In Demotic of the Persian and Ptolemaic periods a writing closely analogous to *šȝr-tw·* in Wenamūn is usual (Sethe, *Burgschaftsurkunden*, 42; Spiegelberg, *Demotische Grammatik*, § 148), and forms seeming to incorporate the conjunctive like *šȝr-mtw·* appear only in or towards Roman times.

(6) The Saʿîdic ϣⲁⲛⲧϥ-ⲥⲱⲧⲙ is thus clearly secondary, for it seems very unlikely that there was a form * existing in older times which then, in Coptic, gained a popularity as great as or greater than its rival *. Probably ϣⲁⲛⲧϥ-ⲥⲱⲧⲙ is due to some contamination of ϣⲁⲧⲉϥ-ⲥⲱⲧⲙ with the conjunctive ⲛⲧⲉϥ-ⲥⲱⲧⲙ the causes of which we are unable to discern clearly.

[1] Because of its difficulties I relegate to a footnote my reference to  in a jotting on the *verso* of *Sallier IV*, 8 = *Eg. Hier. Pap.* 2nd series, Pl. 117. I hazard the conjecture that this should be rendered: "*As to this writing, it was not finished un*[*til*] *I had spent the second month of summer upon it.*" If so, both Late-Egyptian uses of the old *śḏmt·f* form, *viz.* (1) after  and (2) after implicit , will here be exemplified side by side.

[2] The form  in *Pap. Beatty II*, 7, 6 (above *e*) is slightly abnormal, and the form *ỉirtw·tw* discussed above is still more so.

[3] In (*d*) the *t* () of *ỉirtw* has been omitted before the suffix  *tn* of the 2nd pers. plur.

# AN EIGHTEENTH DYNASTY OSIRIS BRONZE

By H. R. HALL

With Plate xli, fig. 3.

The photograph on Pl. xli, fig. 3, shows a fine bronze figure of Osiris, recently acquired by the British Museum (No. 59747), which, although of conventional type, is interesting. The whole effect of the figure is good, and it would be probable enough from this that it was pre-Saïte and of a good period, more likely that of the Eighteenth Dynasty than any other. But it is possible to go further than this if the face is examined carefully. The heads of Egyptian gods were, it is well known, commonly portraits of the reigning king; and more or less like him, according to the vogue of accurate portraiture at the time. One of the periods when accurate portraiture was in vogue was the Eighteenth Dynasty, and, if the face of this little figure is examined, I think it will be apparent that it is intended for a portrait of a Tuthmosid. The outline of the face and the delicately arched, sharply upcut nose in profile are characteristic of the family from the time of Tuthmosis II and Hatshepsut to that of Tuthmosis IV; and personally I think I can see even in this small and ordinary household god an attempt to reproduce the features of Tuthmosis III. In any case I think the figure must definitely belong to the Eighteenth Dynasty. It stands 8 ins. (20·4 cms.) high.

# A PHALLIC FIGURE IN THE BRITISH MUSEUM

By ALAN W. SHORTER

With Plate xli, figs. 1 and 2.

I have to thank Dr. Hall for permission to publish the curious wooden figure reproduced on Pl. xli, figs. 1 and 2, which bears the number 60005 in the collections of the British Museum. It measures 6·3 inches in length, and is carved out of a cylindrical piece of wood which varies from 1·3 to 1·5 inches in diameter, remarkably few cuts having been used by the craftsman to secure quite a striking effect.

Similar wooden figures were discovered in the "Aramaic quarter" at Elephantine by the German excavators, two of which are published by Honroth Rubensohn and Zucker in *Z.Ä.*, XLVI, 33, and probably our example, like them, is meant to be in a squatting position. The technique of execution, too, is remarkably like that of the figure in the left of the German photograph, and there is resemblance in yet one more point, the round hole which is bored just above the rounded base of the British Museum figure. According to the German report (*op. cit.*, 32) this hole was for a phallus, which, though broken off in the two examples figured, was preserved in other specimens.

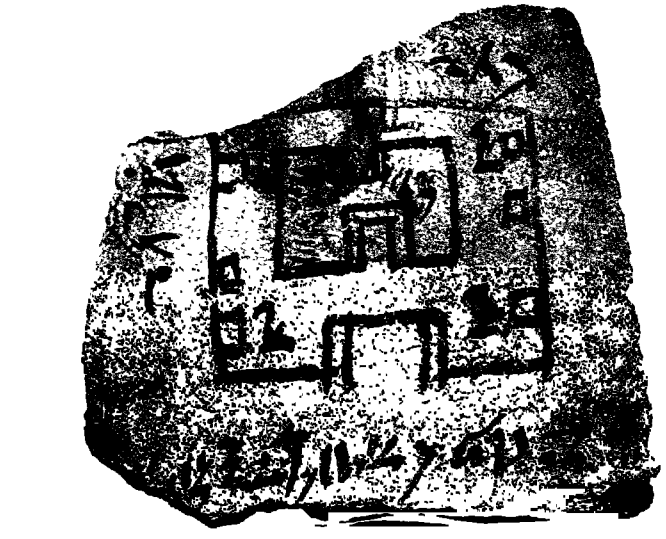
Since the Elephantine figures were found in company with a terracotta relief of what may possibly be two foreign goddesses, the German article suggests that we have here religious relics of the mixed beliefs of the motley population from abroad who besides the Jewish soldiers and colonists, as we know from the famous Elephantine papyri of the Persian period, inhabited the Aramaic quarter at that time (*op. cit.*, 32–33).

However that may be, on looking at our figure we are at once led by the cope-like appearance of its garment at the back to think of the god Ptah, but on the whole it seems more likely that an ithyphallic figure of Min or Amūn is intended, an identification which is favoured by the shape of the headgear.

To conclude, the very strong resemblance to the example published in the *Zeitschrift* tempts us, with every reservation, to see the home of our figure in the "Aramaic quarter" of Elephantine, without hazarding any particular date.



1, 2. Wooden figure, British Museum, No. 60005. *Scale* ⅓.
3 Bronze figure, British Museum, No. 59747 *Scale c.* ⅓.



1



2

1 Ostracon British Museum 41228. *Scale* ½.

2 Buchis stela from Armant

# WORKING PLAN FOR A SHRINE

By S. R. K. GLANVILLE

With Plate xlii, fig. 1.

The ostracon, B.M. 41228[1], shown on Pl. xlii, fig. 1, was found by the Egypt Exploration Society's expedition to Dêr el-Baḥarî in 1904 during the excavation of the mound overlying the Eleventh Dynasty temple, and was among the large collection of such objects presented by the Society to the British Museum. It shows a rough drawing of the plan of a shrine with a semi-covered (?) court, probably made by the architect for the builder's foreman, or by the latter for his gang. That it had this practical intention, and was not merely a casual sketch, seems to be indicated by the measurements. It thus deserves to be added to the short list of published examples of ancient Egyptian plans[2]. The style of the hieratic script suggests the very end of the

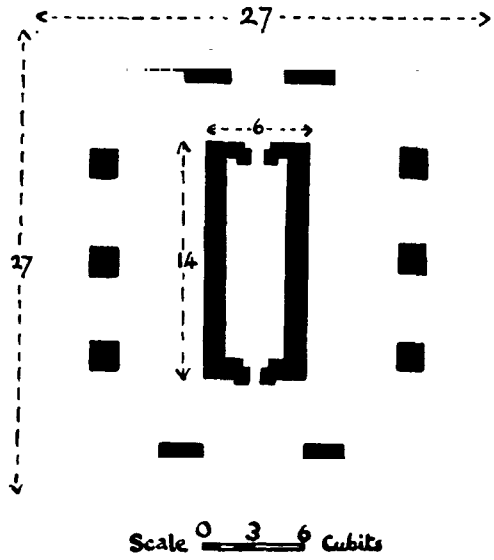



Fig. 1

Eighteenth Dynasty or the beginning of the Nineteenth as the date of the drawing. A number of objects of this period were found in the rubbish which covered the Eleventh Dynasty temple.

The interpretation of the drawing offered in the accompanying figure is tentative. The outer rectangle presents no difficulties, since the two main measurements are clearly

[1] Measurements: $3\frac{7}{8}$ ins. wide by $3\frac{3}{4}$ ins.

[2] See Davies, *An architect's plan from Thebes*, *Journal*, IV, 194 ff. and the references there quoted, Winlock in *Bull. Met. Mus. of Art, Egyptian Expedition* 1921–1922, 26 ff., Gunn in *Annales du Service*, XXVI, 197, and Engelbach in Somers Clarke—Engelbach, *Ancient Egyptian Masonry*, 46 ff.

indicated—"breadth 27," "length 27"[1]; but the thickness of the wall may only be guessed, and the precise shape of the doorways is not indicated by their representation in elevation[2]. It is not even certain whether the two pairs of vertical lines which are cut short by the broken top edge of the ostracon indicate merely a second doorway (as in Fig. 1) or a passage leading to another part of the building as well. I can make nothing of the marks immediately south of this doorway: that on the right is apparently part of the plan; the other is perhaps a sign. So far the plan shows a building 27 cubits square with gateways in the centre of its north and south walls[3], and possibly a passage extending northwards from the former. The problem is to interpret the plan of the smaller building enclosed by the main square.

This smaller building is also rectangular; it also has two doorways in its north and south sides respectively and bridging the N.-S. axis as in the case of the outer construction. The measurements given are "breadth 6," "length 14," and by analogy with those of the larger rectangle should give us the two main measurements over all. Unfortunately a plan drawn to scale of a room of these measurements (Fig. 1) bears very little resemblance in

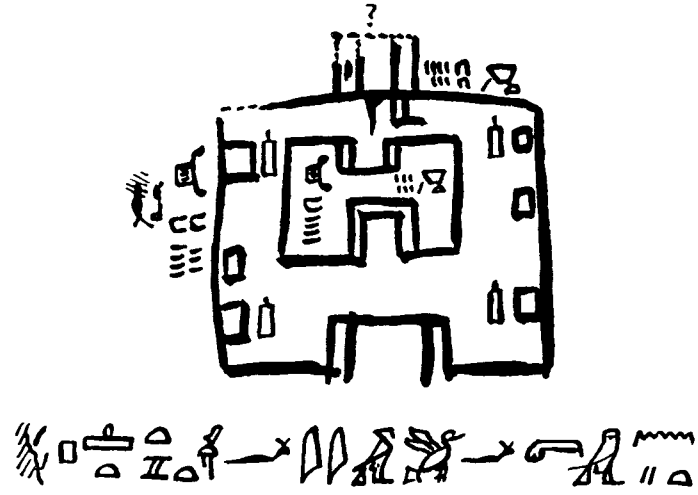


Fig. 2

general proportions to the plan on the ostracon (Fig. 2 and Pl. xlii, fig. 1). Since however the numbers are clear, the only alternative is to assume that one or both of the measurements are to be otherwise applied to the drawing. This is clearly impossible for the length; the breadth might conceivably be referred to the distance from the east wall of the building to the east side—or to the centre—of the doorway, but this would be a very artificial and illogical method of planning (bearing in mind the other measurements) and is only suggested by the accident that through lack of space the north doorway had to be represented upside down, as it were. We are therefore compelled to interpret the measurements in the normal and obvious way, and to explain the divergence between the modern and ancient representations on the general grounds that the latter is only a rough

[1] The word cubit is rather an afterthought than the end of an upper line of which the beginning is lost.

[2] The combination of plan and elevation in a single drawing is too well known to require further comment.

[3] As there is no clue to the actual orientation of the buildings it is convenient to refer to the plan as if its upper side (as here shown) were the north.

sketch, with no pretensions to scale drawing; and the particular excuse that the author had to insert doorways into the north and south walls, which he therefore extended as far as he could within the limits imposed by the plan of the outer building. For it is quite clear from the generous spacing out of its measurements that the latter was drawn first and the inner building afterwards.

The main details of the plan are now clear: a square court encloses a narrow rectangular room, each having a doorway at the north and south ends astride the N.S. axis. The length of the inner room is in the same sense as this axis.

There remain six small and roughly square constructions, four of which are labelled "columns." In spite of the fact that in the plan three of them actually touch the wall of the outer court, and might therefore be taken for engaged pilasters or buttresses, the distinctive label seems to show that they are free-standing columns; and as such they are interpreted in the scale-drawing (Fig. 1). Their size and distance from the outer walls are entirely a matter of conjecture. They would have carried architraves running north and south, which with the outer walls would have supported a roof, thus forming colonnades on the east and west sides of the court. This would be as much in keeping with the general style of Egyptian architecture as to suppose that the whole space between the walls of the court and the inner room was roofed over; and it would account for the proximity of the columns to the outer walls in the plan. Nevertheless the precise position of these columns is the most uncertain feature of the interpretation offered.

The plan cannot be identified with any known existing building at Thebes. In type, however, it closely resembles the sanctuary[1] of Hatshepsūt in the small temple at Medînat Habû, with the surrounding court of Tuthmosis III, which latter is only a few feet longer than that of the B.M. plan. Another example of the same type of cella is the chapel of the sacred boat of Amūn in the temple of Khonsu at Karnak (C in the plan, Baedeker, p. 270). There, however, as in the Eighteenth Dynasty temple at Medînat Habû, the outer building is clearly connected in purpose with the cella, forming with it a corridor leading to the innermost room of the temple. On the ostracon it seems that the surrounding building was rather in the nature of an independent court, since it appears to have been open to the sky except for the colonnades on the east and west sides. It thus resembles in miniature the outer court of the temple of Ramesses III at Medînat Habû. Whether the cella in the plan was actually the home of a sacred barge it is impossible to say. Below the sketch the author wrote an instruction for the orientation of the building. Unfortunately the end is lost and it is of no help to modern investigators: "whoever is in front of it, its west rests (? on his...)," *i.e.*, as one stands in front of the building its west[2] would be on one's right or left or whatever it may have been.

[1] K in Baedeker's plan (*Aegypten*, 1929) facing p. 337.

[2] *'mnt·t* is "west" rather than "right": *nty m bȝḥ·f* requires a resumptive pronoun, and can therefore only imply a statement with reference to the onlooker's right or left; the onlooker's orientation is entirely relative to the buildings, which therefore must be fixed—*i.e.*, "west" not "right." I owe the reading *ḥtp* for the sign after *'mnt·t* to Dr. Gardiner.

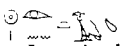
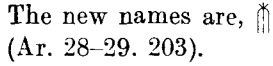
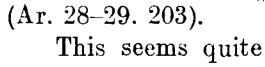
# NOTES ON THE DATE OF SOME BUCHIS STELAE

By H. W. FAIRMAN

With Plate xlii, fig. 2.

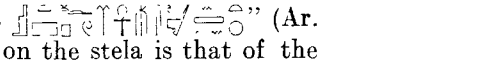
The excavations of the Egypt Exploration Society in the Bucheum at Armant have yielded a large number of stelae recording the deaths of, and other events connected with, the sacred Buchis-bulls[1]. The accurate dating of these stelae is naturally one of the most important duties of the expedition. Hitherto the chief difficulty, in the case of those earlier than the reign of Tiberius, has been to determine whether two bulls are mentioned on any of the stelae.

The inscriptions fall into two groups, connected by two stelae (Ar. 28–29. 229, 228) which have points in common with both groups. The earlier series comprises seven stelae from the reign of Nekhthorheb to that of Ptolemy V Epiphanes. The text is very short and straightforward, and records the date of death, the name, age, date of birth, and birthplace, and the date of induction of the bull (see Pl. xlii, fig. 2, Ar. 28–29. 55, bull of Ptolemy II; the name of the birthplace is omitted). The expressions for "died," "was born" in all these stelae are *pr·in* (or *pr·n*)...*r pt*, and *ms·tw·f* or *ms·n·tw·f*. The inscription in each stela quite obviously only refers to one bull. The same may be said of the two intermediate stelae.

The second series does not present so simple a scheme. The first two lines contain a date, the names and titles of the king and queen, and the name of a bull followed by the phrase  and the same date as that with which the stela began. Then come a short description of the bull's induction at Thebes, the date of that ceremony, and the record of its arrival at Hermonthis. Finally the age of the bull is given, and a brief reference is made to its death and burial. The phrase used is *pr bȝ·f r pt*, and it should be noted that no date is given after this. In explanation of these facts it has been suggested that two bulls are mentioned in these inscriptions. The first date is said to be that of the death of the bull whose name is given, while all the remaining details refer to the life of a second bull, whose name is said to occur twice in each inscription. The new names are,  (Ar. 28–29. 246);  (Ar. 28–29. 161);  (Ar. 28–29. 203).

This seems quite a reasonable suggestion until we come to examine the facts more closely. In the first place, the earliest date recorded is year 26 of Euergetes II (144 B.C.), and the latest is year 35 of Soter II (82 B.C.). It is exceedingly difficult to fit five bulls into this period when the combined ages of three of them amount to some 67 years, even though the last date is that of the induction of a bull. It is also a remarkable thing that in three stelae covering so short a period no bull mentioned in one stela is found in the other two, though each stela is supposed to contain the name of a reigning bull and its predecessor.

[1] Full copies of all the stelae and inscriptions will be given in the forthcoming memoir on the Bucheum and the Cemetery of the Cows.

These doubts are increased when the suggested names are examined. The proposed new bull names are in every case determined by a circle—it is not always possible to determine whether the sign meant is ⊗ or ⊙. This fact in itself is suspicious since all other Buchis names are determined either by a human figure or by a bull. Moreover, the full form *ms n N* of the suggested new name only occurs once in each stela, the name reading *n N* in the other instance. The short form of the name appears immediately after the second date: *hrw ỉr n mwt·f ḥỉt·sp X n N*. The full name occurs in the course of the description of the installation of the bull and its journey to Hermonthis: "Going in the barque of Amūn together with the boats of all the burghers of Thebes and Hermonthis, prophets and priests being with him. He reached Hermonthis " (Ar. 28–29. 203, 11. 5–7; *cf.* 161, 246). Finally, if the first date on the stela is that of the death of a bull the phrase *pr r pt* should occur. In no case is this so, but we always read *ḥỉt·sp X nỉswt bỉt Y* etc. *pr bḫ N*. Neither in the Buchis inscriptions nor in the Apis stelae is *pr* alone used to express death. In the Buchis inscriptions *pr r pt* always occurs, and is common in the Apis stelae. *Pr* surely can only refer to the birth of a bull.

In the face of the above facts it is difficult to see how the theory that each stela mentions two bulls can be maintained. We seem to be forced to the conclusion that the two dates at the beginning of the stelae refer to the birth of one bull only, the date of whose death is not given. How, then, is the supposed second name to be explained? The answer lies in the determinative to the "name," for it is natural to expect the determinative of a circle after an expression of time or place. The phrases *ms n N*, *n N* are not the names of bulls, but contain the name of a town which is probably the birthplace of the bull in question. This view accords perfectly with the requirements of the stelae. The first occurrence of the phrase simply records the fact that the bull was born on a certain date in a certain town[1]. In the second case we find a contrast between the birthplace of the bull and the place in which he spent his life, and we can now translate the passage, "He reached Hermonthis, his living place, he having been born in N." (*ms*, Old Perfective.)

This view has been confirmed by two of the stelae found in the course of the 1929–30 excavations at Armant. One of these (Ar. 29–30. B) records the death of a bull in the first year of a Roman emperor whose cartouches are left blank. The inscription is in three portions, the second of which comprises part of the late Ptolemaic formula. The whole stela is not without textual corruptions and therefore may not be too reliable for evidence, but it is significant that in the part where the Ptolemaic texts give *ms n N* we read *spr·f r ỉwnw šmʿ ỉst·f pw m ʿnḫ n ỉbd 2 prt hrw* 12. The second stela (Ar. 29–30. C) is of the reign of Tiberius, and the text, which is well preserved, is a full and complete copy of the late Ptolemaic type. Here, after the second occurrence of the date of birth, we read *n ỉwnw šmʿ*, and further on *ỉw spr·f r ỉwnw šmʿ ỉst·f pw m ʿnḫ ms n ỉwnw šmʿ*. *Ỉwnw šmʿ* in each case is spelt .

Assuming, therefore, that only one bull is mentioned in these inscriptions, it is now possible to calculate their dates. The full results will appear in the memoir on the Bucheum, but it is worthy of note that, whereas on the theory of two bulls no dates worked out satisfactorily, once it was assumed that each stela referred to one bull only the three late Ptolemaic stelae were found to follow one after the other without the interval of a day, and to connect up with the two intermediate stelae, which in their turn fit on to the last stela of the early group, that of Ptolemy Epiphanes (Ar. 29–30. F.), so that every year from 194 B.C. to 77 B.C. is accounted for.

[1] For the use of *n* instead of *m* cf. Junker, *Grammatik der Denderatexte*, 20.

# THE TRUNCATED PYRAMID IN EGYPTIAN MATHEMATICS

By KURT VOGEL

In their article *Four Geometrical Problems from the Moscow Mathematical Papyrus* published in this *Journal*, XV (1929), 167–185, Gunn and Peet have made an exceedingly close study of the most remarkable problem of Egyptian mathematics yet known to us[1], namely, Problem 14 of the Moscow Papyrus. This is the well known problem[2] in which for the determination of the volume of a truncated pyramid with square base the correct formula $V=\frac{h}{3}(a^2+ab+b^2)$ appears to be arrived at step by step, the special values of the sides of the squares being 4 and 2 respectively, and the height 6. This problem, dating from about 1850 B.C., goes so far beyond what we otherwise know of Egyptian geometry in that period that we are tempted to ask[3] whether there may not have existed side by side with the practical geometry of everyday life an esoteric geometry which was the secret property of the priests. Gunn and Peet do not believe in any such highly developed geometry in the Greek sense, and although they do not refuse their admiration[4] to the high level of Egyptian mathematics evinced by this problem, they nevertheless attempt to give the simplest possible answer to the question "How did the Egyptians arrive at this formula for the truncated pyramid?" After reading the treatment of the first three problems dealt with in their article one is very much interested to see how the authors will answer this question: for they there express the opinion that no algebraical or even purely arithmetical means are admissible[5], since to allow anything of this kind would be to give to Egyptian mathematics an abstract character wholly foreign to it[6].

One cannot refuse one's assent to the assumption made by Gunn and Peet that the determination of the volume of the truncated pyramid involves a knowledge of the formula for the volume of the complete pyramid, for in no other way, it would seem, could the factor $\frac{1}{3}$ have made its way into the formula for the truncated solid[7]. It is true that $\frac{1}{3}Bh$

[1] From Archibald, *Bibliography of Egyptian and Babylonian Mathematics* (in Chace's new edition of the Rhind Pap.), we learn (under Struve, 1930) that Problem No. 10 of the unpublished Moscow Pap. contains the correct formula for the surface of a hemisphere.

[2] See Archibald, *op. cit.*, under Turaiev, 1917.

[3] *Cf.* Rey, *La science orientale avant les Grecs*, 277–8.

[4] Gunn—Peet, *op. cit.*, 178.

[5] Gunn—Peet, *op. cit.*, 169.

[6] It must, however, be stated that it is no longer possible to deny to Egyptian mathematics a scientific character, if only in the germ. This has been clearly established by Wieleitner, Archibald, Rey, Chace and others.

[7] P. Lukey (*Anschauliche Summierungen der Quadratzahlen und Berechnung des Pyramideninhaltes*, in *Zeitschr. f. math. u. naturw. Unterr. aller Schulgattungen*, LXI (1930), 145–158) has recently dealt with the question how the Egyptians could have discovered the formula for the truncated pyramid. In his treatment of the problem the truncated pyramid is broken up into three smaller truncated pyramids each of height $\frac{h}{3}$. The further breaking up of these and the combination of them into simpler bodies are based

(where $B$ is the area of the base) does not actually occur in Egyptian mathematical literature; but it may be safely assumed that this formula was known[1]. From the fact that Democritus "found" the formula for the pyramid we may perhaps conclude that this was a piece of wisdom brought from Egypt, for his visit to that country is authenticated, and he prides himself upon a geometrical knowledge equal to that of the Egyptians.

Gunn and Peet have described a remarkably ingenious method of obtaining this formula $\frac{1}{3}Bh$ for the pyramid. They imagine a right prism (see Fig. 5, p. 181) made of Nile mud and cut into pieces by various sections made with a string. In this way a pyramid and 8 tetrahedra can be produced, 4 of which last can be united to form a pyramid identical with the pyramid produced by the sections. The authors suppose finally that the equality of each of these two pyramids with the sum of the 4 remaining tetrahedra was established by weighing, it being thus found that the volume of a pyramid was $\frac{1}{3}$ of that of the original prism. Now it can hardly be maintained that the method here described is a very simple one[2]. I do not believe it was the method employed, for a number of essentially simpler ones lie at our disposal. For instance, if the possibility of weighing is to be admitted, the weight of a pyramid could by this means have been directly compared with that of the corresponding prism. If on the other hand the use of clay models is envisaged, it would have been possible in this plastic material to transform the pyramid into a prism. Another method is perhaps still more probable, namely that of counting the number of stones in a pyramid and in a prism with equal height and base respectively, or of demolishing a small pyramid[3] and with its stones building on the same base a prism, whose height would be found to be $\frac{1}{3}$ that of the pyramid. In this last method the slanting stones on the face would of course prejudice the accuracy of the result. A good method for determining the volume of solids of irregular shape is given by Heron, the preserver of Greek and Egyptian tradition: the solid whose volume is to be determined is immersed in a tank of water, and the water which overflows determines the desired volume[4].

Which, if any, of these methods, or what others the Egyptians actually used may never be known. One thing alone seems certain, namely that it was mechanical; for this very formula is quoted by Archimedes, who himself made a number of discoveries on mechanical lines, as an example of the truth that the same credit is due to him who first enounces a proposition, even without proof (in this case Democritus), as to him who first produces a proof of the proposition (in this case Eudoxus)[5]. The high worth set here upon practical geometry is the more justified since the striving after knowledge which gives rise to such attempts is already scientific in character.

In order to obtain the volume of the truncated pyramid itself the authors again make use of a model made of Nile mud. The solid is divided into nine pieces by means of

on the assumption that the pyramids were built as "step-pyramids," and the steps afterwards filled up. This was, however, not the method of building. See L. Borchardt, *Die Entstehung der Pyramide*, Berlin, 1928.

[1] The determination of the material needed to build a pyramid in itself demands a knowledge of this formula. *Cf.* the second technical problem (number of men needed to transport an obelisk) in Pap. Anastasi I (Archibald, *Bibliography*, under Gardiner, 1911).

[2] Gunn—Peet, *op. cit.*, 181, n. 1, penultimate line.

[3] The Moscow truncated pyramid itself with its height of 6 cubits is a very modest structure.

[4] Heron, *Metr.*, II, 20. A method of determining the volume of solids of irregular form described in the same chapter shows that models in plastic clay were then, if not earlier, in use.

[5] Archimedes, *Method* (ed. Heiberg, 428–431). *Cf.* too *De sph. et cyl.* (ed. Heiberg, 5).

sections at right angles to the plane of its base (see Figs. 2–4, pp. 179–180). These pieces can be combined to form a parallelepiped $abh$ and a pyramid $\frac{1}{3}(a-b)^2h$, and in this way the following formula is obtained[1]: $V = abh + \frac{1}{3}(a-b)^2h$. This formula has now to be reduced to the form in which it occurs in the papyrus; this can be done at once by anyone who knows "algebra," but by no one else. We have only to "take out of the bracket" the factor $\frac{h}{3}$ to obtain the intermediate formula $V = \{3ab + (a-b)^2\}\frac{h}{3}$. Without algebra, however, that is to say, without the "application of arithmetical operations to combinations of quantities of various kinds[2]" (here pure numbers and space quantities), the conscious taking out of the factor $h$ and the reduction to the denominator 3 are impossible, at any rate in the general formula. The Egyptian could of course employ the law of taking out factors or of reducing to common denominator without difficulty in the case of particular numbers; but here, as the authors rightly insist[3], it is a question not of a particular case but of a general formula. How could it have been seen, for example, that the 24 which arises out of the first term of $\{4 \cdot 2 + \frac{1}{3}(4-2)^2\}6$ when the 3 is taken out was to be resolved into $16 + 8$? All the developments in question must, as the authors themselves agree, have been performed on the general formula, and, if this is so, what we have before us is pure mathematics and algebra, the use of which Gunn and Peet from the outset deny to the Egyptians.

Lastly the intermediate formula had to be reduced to its final form[4]. The transformation of the factor $3ab + (a-b)^2$ into $a^2 + ab + b^2$ which is necessary for this purpose was, according to the authors, carried out by a geometrical comparison of areas in a drawing made to scale or directly from figures cut out of papyrus[5]. If we are to suppose that this transformation, not in itself the least necessary, was carried out in this way, then we must see in the striving after the simplest algebraical form of expression which it betrays one more incontrovertible proof of the fact that Egyptian mathematics was by no means purely concrete in character.

If, however, we are not prepared to agree with the explanation here outlined we are bound to ask ourselves the further question what simpler method can be proposed, for the fact remains that the Moscow papyrus gives the formula for the volume of a truncated pyramid as $(4 \cdot 4 + 4 \cdot 2 + 2 \cdot 2)\frac{h}{3}$. Before I offer a new suggestion I should like to go further afield and cast a glance over all that is to be found concerning our problem in the ancient sources, including under this head not only the truncated pyramid but the closely related truncated cone.

With regard to the volume of the pyramid there is nothing to be found in Egyptian sources. Problems Nos. 56–59 of the Rhind Papyrus deal with the relation between the height of a pyramid, half the side of the base, and the inclination of a face (*seked* is the batter per 1 cubit vertical height). We are told that Thales determined the height of the pyramid by measuring a shadow. It is not until Democritus (fifth century B.C.) that the formula $\frac{1}{3}Bh$ first appears, as mentioned above, a formula whose accuracy was proved 50 years later by Eudoxus by means of a method of exhaustion proof. Euclid too in the

[1] The resolution given in Heron (*cf.* further p. 245 below) is based on entirely different sections.

[2] Hankel's definition, *Zur Geschichte der Mathematik in Alterthum und Mittelalter*, 195.

[3] Gunn—Peet, *op. cit.*, 178, n. 8.

[4] The further developments (likewise "by very simple means") are due to Engelbach. See Gunn—Peet, *op. cit.*, 182, n. 1.

[5] Gunn—Peet, *op. cit.*, 183.

twelfth book of his *Elements* deals with the volume of pyramids and cones, but without giving examples[1]. These are found, however, in large numbers and worked out in the most various ways in the works of Heron, in whom Greek, Egyptian and Babylonian tradition seem to meet. Here too appear for the first time in Greek mathematics formulae, *i.e.*, methods of working out the volume of truncated pyramids and cones. These are collected in the following paragraphs together with what is known on this subject from non-Greek ancient mathematical sources. We shall divide the material into correct (A) and incorrect, *i.e.*, approximate (B), formulae.

A.

1. The volume of the truncated solid can be determined as the difference of two complete solids without further special formulae, so long as one can first, by means of a proportion, work out the height of the pyramid or cone needed to complete it. This method is enounced by Heron in *Metrica*, II, 7, "as a general proposition" (*καθόλου*) for every truncated pyramid, and in *Metrica*, II, 10 transferred to the determination of the truncated cone (*cf.* also *Metrica*, III, 20–22). The same method is employed by Alḫwārazmi (Rosen, *The Algebra of Mohammed ben Musa*, 1831, 83–84) in his problem concerning the truncated pyramid (square base and top, with the sides $a = 4$, $b = 2$ and the height $h = 10$).

2. A special formula[2] for the volume of the obelisk (a wedge-shaped body with a batter), which is closely related to the truncated pyramid, is developed by Heron in *Metrica*, II, 8. Here a *βωμίσκος* (*Ster.*, II, 68) with rectangular but not similar base and top (let the sides of the rectangles be $a_1$, $a_2$ and $b_1$, $b_2$ respectively) is broken up by means of sections parallel to two of the side faces into four solids, whose content is comprised in the important formula[3]

$$V = \{\tfrac{1}{2}(a_1 + b_1) \cdot \tfrac{1}{2}(a_2 + b_2) + \tfrac{1}{2}(a_1 - b_1) \cdot \tfrac{1}{2}(a_2 - b_2) \cdot \tfrac{1}{3}\} h.$$

When the base and top are square and not rectangular the obelisk becomes a truncated pyramid, and the formula takes the simplified form

$$V = \{\tfrac{1}{2}(a + b)\}^2 + \{\tfrac{1}{2}(a - b)^2 \cdot \tfrac{1}{3}\} h,$$

which is used in a number of examples[4]. This last formula can also be extended to the truncated cone; this is shown in *Metrica*, II, 9, where the connexion between truncated cone and truncated pyramid is very clearly brought out by the drawing. The circles (diameters $D$ and $d$) are circumscribed by squares. Correspondingly, in the working out the formula is first exactly followed and the transition to the truncated cone accomplished by multiplying by the proportional factor $\frac{11}{14}\left(=\frac{\pi}{4}\right)$. Thus the formula now reads[5]:

$$V = [\{\tfrac{1}{2}(D + d)\}^2 + \{\tfrac{1}{2}(D - d)\}^2 \cdot \tfrac{1}{3}] \cdot \tfrac{11}{14} \cdot h.$$

[1] Euclid in Book XII of his *Elements* (Chap. 7) gives an independent proof of the volume of the pyramid by means of the resolution of a prism into three pyramids. *Cf.* the "modern" proof of Gunn—Peet, *op. cit.*, 181, n. 1.

[2] Set out in full in Heath, *A History of Greek Mathematics*, II, 332.

[3] The numerical values of $a_1$, $a_2$, $b_1$, $b_2$, and $h$ are here: 20, 12, 16, 3, 10; in *Ster.*, I, 34: 20, 14, 4, 2, 24; in *Ster.*, II, 68: 24, 16, 12, 8, 50.

[4] The problems in *Ster.*, I, 32 and II, 58 take for $a$, $b$ and $h$ the values 10, 2 and 7. *Ster.*, I, 33 and *Mens.*, 42 take 28, 4 and $\sqrt{63}$.

[5] In Heron, *Ster.*, I, 17 we find for $D$, $d$ and $h$ the values 28, 4 and 9; in *Metr.*, II, 9 the values 20, 12 and 10. In *Ster.*, I, 38 a proportional factor $(\frac{1}{3} + \frac{1}{10})$, giving for $\sqrt{3}$ the value $\frac{26}{15}$, is employed, and by this

The same formulae for truncated pyramid and cone also occur in an unpublished papyrus in Vienna[1] except that $\pi$ is given the value 3 instead of $\frac{22}{7}$. From the formula given above for the truncated pyramid with square base it would not be difficult to derive the formula of the Moscow papyrus $V=(a^2+ab+b^2)\cdot\frac{h}{3}$ by simple but again "algebraical" transformations, yet it does not occur in Heron[2]. On the other hand the corresponding one for the truncated cone does, though it is neither deduced nor proved. It appears in *Stereometrica*, I, 16, in the form[3]

$$V=(D^2+d^2+Dd)\cdot\frac{h}{3}\cdot\frac{11}{14}.$$

With this example we may leave the correct formulae in Heron and pass on to the equally unproven—and in this case unprovable—approximation formulae. They clearly arose out of the necessities of practical life—determination of the content of baskets, tubs, tree trunks, dykes, etc.—and go back in part to Babylonian sources[4].

B.

In all cases an approximation to the volume of the truncated solid is made by means of a prism or cylinder. Two main cases are here to be distinguished:

1. The solid with which comparison is made has as base the section half-way between top and bottom (mean section).

The formulae reached on this assumption are derived from the correct formulae dealt with above by neglecting their second terms. The approximation formulae are nevertheless prior to the correct, and there is no reason for regarding them as conscious abbreviations of these[5]. In Heron, *Ster.*, I, 25, we find the approximation formula in question for the σφηνίσκος, identical with the above-mentioned βωμίσκος, namely[6]

$$V=\{\tfrac{1}{2}(a_1+b_1)\,\tfrac{1}{2}(a_2+b_2)\}\cdot h.$$

For the case when the base is square this formula appears in Brahmagupta[7] as a rule "designed for practical use" in the following form:

$$V=\{\tfrac{1}{2}(a+b)\}^2\cdot h.$$

means the transition from square to equilateral triangle is achieved. *Metr.*, II, 6 and 7 are further examples of a truncated pyramid on a triangular base.

[1] *Cf.* Archibald, *Bibliogr.*, prefatory note. I must here express my thanks to Dr. H. Gerstinger of the Vienna Nationalbibliothek for putting photographs of the papyrus at my disposal.

[2] The general formula $V=(G+\sqrt{Gg}+g)\frac{h}{3}$ first occurs in Leonardo of Pisa.

[3] For $\frac{11}{14}\cdot\frac{1}{3}$ we have here $\frac{11}{42}$. For $D$, $d$ and $h$ we find in *Ster.*, I, 16 the values 6 (Heiberg gives 7), 2 and 4; *Ster.*, II, 25 has 10, 5 and $6\frac{1}{2}$. In this problem the factor $\frac{11}{14}$ has clearly been omitted.

[4] A. Hertz (*Les débuts de la géométrie*, in *Rev. de synthèse hist.*, XLVII (1929), 34) speaks of a spear-point of electrum in the form of a truncated pyramid from a grave of the First Dynasty of Ur.

[5] See Heath, *op. cit.*, II, 333.

[6] The values of $a_1$, $a_2$, $b_1$, $b_2$ and $h$ are 7, 6, 5, 4, 25.

[7] For the Indian mathematics here concerned see H. Colebrooke, *Algebra with Arithmetic and Mensuration from the Sanscrit of Brahmegupta and Bhāscara*, London, 1817; M. Rangācārya, *The Gaṇita-Sāra-Saṅgraha of Mahāvīrācārya*, Madras, 1912. The three Indian rules are to be found in Colebrooke, *op. cit.*, 312–3. The rule for practical use is called in Brahmagupta Vyavaharica and in Mahāvīra Karmāntika; the rough rule is called in B. Autra and in M. Aundra; the correct rule is called in B. Sūkṣma.

A further example is also to be found in old Babylonian mathematics, where the volume of a siege-work is by means of the same method of approximation worked out as an obelisk with trapezia as base and top[1]. For the determination of the truncated cone the same method is still more frequently employed. If instead of a truncated cone a cylinder is constructed with the section half-way up for its base, the volume is found to be, if the mean diameter $\frac{1}{2}(D+d)$ be denoted by $d_m$ and $\pi$ taken as $\frac{22}{7}$,

$$V = {d_m}^2 \cdot \tfrac{11}{14} \cdot h.$$

In Heron we find a number of problems in which this formula is employed to determine the volume of tubs, pitchers, columns, etc.[2] Side by side with this, however—and this seems to me particularly worthy of attention—appears a second and clearly older version of the same formula. The difference between them lies in the fact that in the latter the volume is obtained not as a function of the diameter or in particular the mean diameter but as a function of the circumference. If we denote the mean circumference $\frac{1}{2}(C+c)$ by $c_m$, then the formula employed by Heron in *Ster.*, II, 12 becomes

$$V = {c_m}^2 \cdot \frac{7}{88} \cdot h, \quad \text{or} \quad {c_m}^2 \cdot \frac{1}{4\pi} \cdot h.$$

The values here are $C = 9\frac{483}{896}$, $c = 8\frac{7}{16}$ and $h = 24$. The expression which occurs here and in various places in Heron (*Geometrica*, 17) for the area of the circle is in my opinion of Babylonian origin, for, if we take for $\pi$ the Babylonian value 3, we obtain for the circle precisely the formula $A = \frac{1}{12}c^2$ which Struve has shown to have been used in Babylonian mathematics[3] and which also occurs in Heron (*Mensurae*, 9). To this last form may perhaps refer the remark of Heron concerning the improvement of the formula (ἔκθεσις) by Patrikios, and the comment "For the ancients did not take the mean value[4] of the two diameters." The same formula $V = {c_m}^2 \cdot \frac{h}{12}$ occurs later in the Berlin papyrus P. 11529[5], as well as in the Akhmîm papyrus[6]. In the Oxyrhynchus papyrus 470 it appears[7] in the form $\frac{1}{3} \cdot c \cdot \frac{1}{4} \cdot c \cdot h$, *i.e.*, $\frac{1}{12}c^2h$.

[1] Cuneiform tablet No. 85194 of the Brit. Mus., dating from 2000 B.C. See, too, Archibald, *Bibliography*, under Ungnad, 1916. A similar siege-work (rampart) is worked out in Mahāvīra (Rangācārya, *op. cit.*, 269).

[2] The values of $D$, $d$ and $h$ in these various problems are as follows (the references are all to the *Stereometrica*): I, 15 ; 10, 4 and 30. I, 21 ; 3 (?), $2\frac{5}{8}$ (?) and 21. I, 51 and II, 7 ; 5, $3\frac{1}{2}$ and 6. I, 52 and II, 8 and 9 ; 8, 6 and 10. II, 10 ; 3, $2\frac{3}{4}$ and 24. II, 22 ; 4, 3, $h$ not given. II, 24 ; 3, $2\frac{1}{2}$ and 6.

[3] *Quellen und Studien zur Geschichte der Mathematik*, 1929, 86. Tropfke (*Gesch. der Elementarmathematik*, VII[2]), who sees in the Geometry of Heron "a good example of Egyptian achievement" (pp. 4 ff.), regards the approximate value mean section × height as an old Egyptian formula (pp. 5 and 23). Probably, however, it originated in Babylonia.

[4] This is the translation I would give to ἔμιξαν (Heron, *Ster.*, I, 21) instead of Heiberg's "add," for which the Greek generally uses συντιθέναι or προστιθέναι. It is precisely by a process of combination (mixing) that a mean value is here obtained just as in the case of goods of varying quality. For a further treatment of mean values by Patrikios see below p. 249.

[5] See Archibald, *Bibliogr.*, under Schubart, 1916. Here $C=7$ cubits, $c=5$, and $h=20$ finger-breadths (!). Instead of $\frac{1}{12}$ the papyrus gives $\frac{1}{6}$, and there are other mistakes.

[6] See Archibald, *Bibliogr.*, under Baillet, 1892. Here $C=20$, $c=12$, $h=6\frac{1}{2}$. For $\frac{1}{12}$ we here find $\frac{1}{36}$ !

[7] See Archibald, *Bibliogr.*, under Grenfell—Hunt, 1903. $D$, $d$ and $h$ have the values 24, 12 and 18. The formula given by Borchardt (*Altagyptische Zeitmessung*, in Bassermann—Jordan, *Die Gesch. d. Zeitmessung u. d. Uhren*, 11), namely $V = h \cdot 3\{\frac{1}{2}(R+r)\}^2$, which is also taken over by Struve (*op cit.*, 87), does not actually occur in this form in the text, though it does occur there in a form from which this can easily be derived. Archibald indicates the connexion correctly in his *Bibliogr.*

2. In a second approximation formula the arithmetic mean between the top and bottom surfaces is taken as base of the solid with which comparison is made. The formula obtained in this way, which is used only in a few cases, is, for the truncated pyramid,

$$V = \tfrac{1}{2}(a^2 + b^2) \cdot h.$$

It occurs in Heron, *Ster.*, II, 17 and 59[1], and also in Brahmagupta, where it is given as the "rough solution[2]." For the truncated cone it can be shown to have been known in Babylonian mathematics[3] in the form $V = \frac{1}{2}(\frac{1}{12}C^2 + \frac{1}{12}c^2) \cdot h$, where once again occurs the treatment of a circle as a function of its circumference, referred to above. When the upper surface is equal to 0, *i.e.*, when the truncated pyramid becomes a pyramid, the volume becomes $\frac{1}{2}Bh$, where $B$ is the area of the base. This very rough approximation is found in Aryabhata[4]; it reminds us of the late Egyptian method of regarding triangles as limiting forms of four-sided figures and working them out with the formula

$$\tfrac{1}{2}(a + 0) \cdot \tfrac{1}{2}(c + d).$$

We have now completed the list of examples[5] of truncated pyramids and cones in ancient mathematical literature; I would only add that in Brahmagupta a third "correct" formula[6], corresponding to the solution of the Moscow papyrus, is very ingeniously brought into connexion with the two other approximation formulae.

If we leave out of account the Moscow papyrus we may draw two conclusions from the examples we have considered. In the first place we have seen that, unlike the correct solutions, which first occur in Heron, the approximation formulae go back to ancient Babylonian times. It has in addition transpired that though the theory of the subject had in the meantime reached correct expressions for the volumes, these approximation formulae still continued to be used, though probably only as rules for practical work, out of which indeed they had sprung.

Before we make up our minds to see in the formula of the Moscow papyrus an absolutely correct solution of unknown origin of the problem, in contrast to the various approximation methods—in which case it would fall completely outside the time limits here dealt with—we must ask whether or no among the Egyptians there occurred in everyday life truncated pyramids from which a formula might have been developed. To this question we must answer Yes, for, not to mention heaps of earth and excavations, which would deserve consideration under this head, many pyramids have along their edges a series of such truncated pyramids, of particularly simple form in that two of the sides are at right angles[7] (Fig. 1). One would be inclined to expect that this simple special case would lead to a particularly easy formula, from which by a generalization,

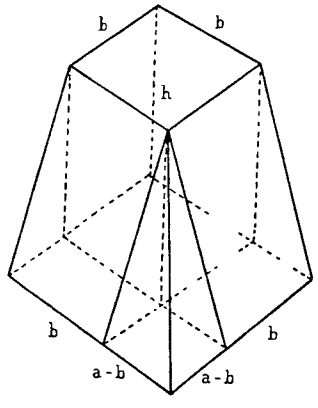


Fig. 1

[1] Where $a$, $b$ and $h$ are 3, 2 and 8 and 16, 6 and $37\frac{5}{12}$ respectively.

[2] *Cf.* n. 7 on p. 246.

[3] Struve, *op. cit.*, 87 with $C = 4$, $c = 2$ and $h = 6$.

[4] Rodet, *Leçons de calcul d'Âryabhata* (*Journ. asiatique*, 1879, XIII, 398). C. Müller (*Die Mathematik der Śulvasûtra*, in *Abh. aus d. math. Sem. der Hamburgischen Univ.*, VII (1929), 174) regards this passage as incorrectly read or interpreted. Another incorrect approximation is found in Alḫwārazmi (Rosen, *op. cit.*, 84); there we are told to take $\frac{11}{14}(Dd)^2$ in order to get the base.

[5] It makes no claim to completeness.

[6] *Cf.* p. 246, n. 7.

[7] Compare, in Borchardt, *Die Entstehung der Pyramide*, Plate 2, the corner-stone in the south-west corner, a truncated pyramid on a rectangular base.

even if an unproved one, the form in question could be derived. Yet this is not the case, as a little consideration will show, for the formula which here occurs (see Fig. 1) is again $V = \{b^2 + b(a-b) + (a-b)^2 \cdot \frac{1}{3}\} \cdot h$, and in order to reduce this to the required form $(a^2 + ab + b^2) \cdot \frac{h}{3}$ we should have to assume all the arithmetical and algebraical knowledge described above. In this way we come no nearer to the solution of our problem, and I therefore throw out for discussion an entirely different suggestion.

The approximation formulae, which, as we saw, can be traced back to the earliest times, showed that the volume of the truncated pyramid could be dealt with by approximation to the prism in various ways, all of which assumed some kind of arithmetic mean. Now the thought may have occurred to someone that a better approximation could be reached if the mean of three surfaces were taken instead of the two (top and bottom). If to the two squares $a^2$ and $b^2$ we add the rectangle $ab$ formed by taking a side from each of the two squares, then one third of the sum of the three surfaces would give the required corrected value for the base of the figure of comparison, whose "formula" is thus at once determined as $\frac{1}{3}(a^2 + ab + b^2) \cdot h$. The fact that the factor $\frac{1}{3}$ is here separated from $h$ in no way tells against my suggestion, since the law of commutation was perfectly well known to the Egyptians in a particular case, though not as an algebraical principle[1]. In the formula of Alḫwārazmi for the truncated pyramid mentioned above $\frac{1}{3}$ is, in exactly the same way, connected with the surface and not with the height.

The process of forming an arithmetic mean out of more than two terms is known to us from other examples. In Heron, *Mensurae*, 59, a mean of four terms is taken, and the process described in his *Geometrica* (XXI, 26, ed. Heiberg, 387) of working out an area by the use of an arithmetic mean of three quantities, $\frac{1}{3}(7+5+3)$, is attributed[2] as a theorem to that very Patrikios to whom, as we saw above, an improvement of the approximation formula for the volume of the truncated cone is ascribed. In the next section of the *Geometrica* and by the Indian mathematicians the process is extended to any required number of terms. Thus, for example, in Mahāvīra (Rangācārya, *op. cit.*, 263) "The sum of the depths (measured in different places) is divided by the number of places." When further we find in Bhāscara (Colebrooke, *op. cit.*, 98) a mean of six terms, consisting of the top and bottom surfaces and four times the mean section, we must attribute it to the same striving after an improvement of the result as is evinced by the Moscow papyrus.

We have two alternatives. If we see in the formula of 1850 B.C. the correctly derived formula for the truncated pyramid then we must allow to the Egyptians, side by side with a highly developed art of experiment, the arithmetical-algebraical equipment necessary to such a derivation in its full extent. On the other hand if my suggested explanation be accepted we are no longer compelled to attribute to the Egyptians constructions and mental processes outside their ken. This remarkable problem will then be fully in place in a treatise of this date as an example of how men, while consciously striving after accurate knowledge though still working on the lines of the research indicated by Archimedes, succeeded in dealing with the problems of everyday life.

[1] Compare, for example, in problem No. 61 of the Rhind Papyrus, lines 2 and 3.

[2] In *Ster.*, II, 52 Heron takes as the mean of three quantities $\frac{1}{2}\{\frac{1}{2}(a+b)+c\}$ instead of $\frac{1}{3}(a+b+c)$.

# BIBLIOGRAPHY: CHRISTIAN EGYPT (1929–1930)

By DE LACY O'LEARY, D.D.

The following abbreviations are used in this Bibliography:

*A.B.* = *Analecta Bollandiana, Brussels.*
*Ä.Z.* = *Zeitschrift fur ägyptische Sprache.*
*B.Z.* = *Byzantinische Zeitschrift.*
*D.L.Z.* = *Deutsche Literaturzeitung.*
*H.T.R.* = *Harvard Theological Review.*
*J.A.* = *Journal asiatique, Paris.*
*J.H.S.* = *Journal of Hellenic Studies.*
*J.R.A.S.* = *Journal of the Royal Asiatic Society.*
*J.T.S.* = *Journal of Theological Studies.*
*O.L.Z.* = *Orientalistische Literaturzeitung.*
*R.H.E.* = *Revue d'histoire ecclésiastique, Louvain.*
*R.O.C.* = *Revue de l'Orient Chrétien.*

## I. Biblical.

(*a*) *Old Testament.*

H. A. Sanders, *A newly discovered leaf of the Freer Psalter*, appears in *H.T.R.*, xxii (1929), 391–3, and gives the text of Ps. 146. 9—148. 1.

G. Sobhy, *The Book of Proverbs* (cf. *Journal*, xv (1929), 262), is reviewed by C. Schmidt in *O.L.Z.* xxxiii (1930), 25–8.

H. S. Gehman, *The Sahidic and Bohairic Versions of the Book of Daniel*, appears in the *Journal of Bib. Lit.*, xlvi (1929), 279–330.

W. Till, *Die Achmimische Version* (cf. *Journal*, xv (1929), 262), is reviewed by P. P(eeters) in *A.B.*, xlvii (1929), 399–400.

Sanders-Schmidt, *Minor Prophets in the Freer Collection* (cf. *Journal*, xv (1929), 262), is reviewed by R. Nasimbene in *Athenaeum*, vi (1928), 264–8, and by H. I. Bell in *Classical Rev.*, xliii (1929), 89–90.

(*b*) *New Testament.*

M J. Legrange, *Un nouveau papyrus évangélique*, appears in *Rev. Bibl.*, xxxviii (1929), 161–72, and deals with Michigan, No. 1570, published by H. A. Sanders, *Early Papyrus of the Gospel of Matthew*, in *H.T.R.*, xix (1926), 215–26.

W. Till, *Ein Fayyumisches Acta-Fragment*, appears in *Muséon*, xlii (1929), 193–6, and gives text, notes, and translation of Acts 16. 6–9 and 13–14 from Heidelberg Universitätsbibl., 662. It is reviewed by O. Eissfeldt in *D.L.Z.* (N.F. vi), (1929), 1468–9.

## II. Apocryphal, Gnostic, etc.

A. Mingana, *Woodbrook Studies*, Fasc. 6, *Apocalypse of Peter*, in *Bull. Joh. Rylands Libr.*, xiv (1930), 182–297, introduction (182–9), translation (189–241), and text (242–297). This apocalypse is an original composition in Arabic, but is based on Coptic sources (p. 184), from which also an Ethiopic text was taken.

The earlier fascicules (cf. *Journal*, xv (1929), 262–3), so far as published in 1928, are reviewed by D. Margoliouth in *J.R.A.S.* (1930), 149–52.

A. D. Nock, *Greek Magical Papyri*, in *Journal*, xv (1929), 219–35, shows that these papyri often contain a mystic element akin to the teaching of the Pistis Sophia.

C. Schmidt, *Pistis Sophia* (cf. *Journal*, xi (1925), 321), is reviewed in *Bilychnis*, xviii (1929), 280–1.

F. C. Burkitt, *Religion of the Manichees* (cf. *Journal*, xii (1926), 307), is discussed in *Bilychnis*, xviii (1929), 283–4.

## III. Liturgical.

(*a*) *Euchologion*

A. D. Nock, *Liturgical Notes: On the Anaphora of Serapion; on the Didache, μνήσθητι*, etc., appears in *J.T.S.*, xxxi (1930), 381–95.

J. M. HARDEN, *The Anaphoras of the Ethiopic Liturgy*, Lond. (1928), IV, 136, is reviewed by J. SIMON in *A.B.*, XLVII (1929), 405–6.

H. LIETZMANN, *Ein liturgischer Papyrus* (cf. *Journal*, XV (1929), 263, is noticed by F. Z(UCKER) in *B.Z.*, XXVII (1927), 178–9.

H. FUCHS, *Die Anaphora d. monoph. P. Jôhannàn I* (cf. *Journal*, XIII (1927), 252), is reviewed by S. EURINGER in *Theol. Rev.*, XXVII (1928), 463–6.

(*b*) *Lectionaries, Synaxaria, etc.*

A. BAUMSTARK, *Die Quadragesimale Alttestamentliche Schriftlesung des koptischen Ritus*, in *Oriens Christianus* (1929), 37–58, is a very complete analysis of the O.T. lessons used in the Coptic rite.

W. BUDGE, *Book of Saints* (cf. *Journal*, XV (1929), 264), is reviewed by P. P(EETERS) in *A.B.*, XLVII (1929), 120–2.

(*c*) *Hymns.*

A. BAUMSTARK, *Drei griechische Passiongesange Ägyptischer Liturgie*, in *Oriens Christ.* (1929), 69–78, deals with both Greek and Coptic forms.

D. O'LEARY, *The Difnar (Antiphonarium) of the Coptic Church*, Part III, Lond. (1930), vii, 61–6, contains the hymns for the months Bashons, Baouneh, Abib, Mesre, and the days of Nasi, and some hymn fragments preserved in the Bristol Museum. The previous part (cf. *Journal*, XV (1929), 264) is reviewed by P. P(EETERS) in *A.B.*, XLVII (1929), 119–20.

(*d*) *Various.*

H. LINSSEN, ΘΕΟΣ ΣΩΤΗΡ, in *Jahrb. f. Liturgie*, VIII (1928), 1–75, suggests that P. Oxy. 405 is liturgical.

## IV. CHURCH LITERATURE AND THEOLOGY.

(*a*) *Patres Apostolici.*

R. VAN DEEMTER, *Der Hirt des Hermas, Apokalypse oder Allegorie?* Delft (1929), VII, 167, is reported, but I have not been able to see a copy. It was reviewed by S. GREYDANUS in *Gereformeerd theologisch Tijdschrift*, Aalten, XXX (1929), 140–1.

C. SCHMIDT, *Studien zu den Pseudo-Clementinen* (Die älteste römische Bischofsliste und die Pseudo-Clementinen), appears in *Texte u. Untersuch.*, XLVI, 1, Leipzig (1929), 398. It is reviewed by H. KOCH in *Theol. Lit. Zeit.*, LIV (1929), 483–7.

C. H. TURNER, *Notes on the Apostolic Constitutions*, III. *The Text of the Eighth Book*, in *J.T.S.*, XXXI (1930), 128–41. Parts I and II were published some 14 or 15 years ago, and the author now resumes his subject. He is directly concerned with the Greek text, but necessarily refers to the Saʿidic.

(*b*) *Patristic Literature.*

CH. MARTIN, *Une homélie* De Poenitentia *de Sévérien de Gabala*, in *R.H.E.*, XXVI (1930), 331–43, deals with a homily which is not connected with that bearing the same title in H. DE VIS, *Homélies coptes de la Vaticane* (1922).

G. D. PAUL, *Ein Bruchstück des Origines über Genesis* i. 28, Giessen (1928), 35 and one plate, has been reviewed by F. Z(UCKER) in *B.Z.*, XXVIII (1929), 429, and by B. CAPELLE in *Rec. de théol. anc. et méd.* (1929), 522.

L. TH. LEFORT, *S. Athanase: Sur la virginité*, in *Muséon*, XLII (1929), 197–275, deals with a passage from S. Athanasius contained in Paris copte $131^{1}$, ff. 90–113: 78, ff. 58–61: $131^{2}$, f. 135, part of the same volume as the four leaves of Fonds Borgia in Zoega, ccxlv, 197–212, introduction: 213–39, text: 240–64, translation: 265–9, Suppl. I. Nouveau frag. de la 1e pseudo-Clémentine, amongst the fragments at Paris bound together as "Œuvres de Chenoute" (Paris copte $130^{2}$, ff. 101–102): 269–72, Suppl. II. La citation de S. Athanase par Chenoute, Paris copte $131^{7}$, f. 26, which covers the last third of Leipoldt's text (III, p. 108) and the first two-thirds of the Brit. Mus. text: 273–4, note on this citation: 275, addenda et corrigenda.

R. LORENT, *De Egyptische Kerkordening en Hippolytus van Rome*, Haarlem, 1929, 188, is a dissertation for a doctorate at Leyden. Reviewed by J. A. ROBINSON, in *J.T.S.*, XXXI (1930), 93–5, and by H. V. MEYBOOM in *Museum*, XXXVII (1930), 84–5.

I. MEIFORT, *Das Platonismus bei Clemens Alexandrinus*, Tübingen (1928), 93. It is noticed in *Bilychnis*, XVIII (1929), 277–9.

(*c*) *Literary History.*

Amongst the announcements of "Der sechste Deutsche Orientalistentag" held at Vienna on 10–14 June may be noted Section V, which deals with the Christian East. On Friday, 13 June, G. GRAF read a paper on "Die Litteratur der Kopten in der arabischen Zeit." No other papers announced seem to have direct bearing on Coptic studies.

The new fascicule of CABROL-LECLERCQ, *Dict. d'archéologie chrét.*, VIII (1930), 1599–1635, contains an article on *Littérature copte* by D. O'LEARY.

## V. HISTORY.

(*a*) *General.*

H. I. BELL, *Juden u. Griechen* (cf. *Journal*, XIII (1927), 254), is reviewed by P. P(EETERS) in *A.B.*, XLVII (1929), 404–5), and in *J. Roman Stud.*, XVIII (1929), 127.

B. J. KIDD, *Churches of Eastern Christendom* (cf. *Journal*, XV (1929), 266), is reviewed by J. SIMON in *A.B.*, XLVII (1929), 114–15.

P. HENDRIX, *De Alex. Haeresiarch Basilides* (cf. *Journal*, XIII (1927), 252), is reviewed by C. BACKVIS in *Byzantion*, IV (1929), 641–4.

Several works deal with the history of the church of Abyssinia, which has a close bearing upon the Coptic Church. J. B. COULBEAUX, *Histoire politique et religieuse de l'Abyssinie*, Paris, 1929, 3 vols. I, 27 + 356; II, 493; III, plates.

TH. S. DI S. DETOLE, *Etiopia Francescana nei documenti dei sec. xvii e xviii*, Quaracchi, 1928, 2 vols. in one, clix + 493, is a work concerned with later history of Franciscan intercourse with the Abyssinian church. It is reviewed by F. WILLCOX in *R.H.E.*, XXVI (1930), 162–4.

H. MIDDLETON-HYATT, *The Church of Abyssinia*, Lond. 1928, 302, is reviewed by C. DUMONT in *Rev. des sci. philos. et théol.*, Paris, XVIII (1929), 711–12, by E. LITTMANN in *O.L.Z.*, XXXII (1929), 669–72, and by J. SIMON in *Muséon*, XLII (1929), 126–7.

An article, *Reform in the Coptic Church*, by F. F., appeared in *The Church Times* for 16 May, 1930, 625. It describes the Coptic Church as by no means moribund. There are at present 18 diocesan bishops under the Patriarch: in Cairo there are 58 churches.

In CABROL-LECLERCQ, *Dict. d'arch. chrét. et de liturgie*, IX, the article *Listes épiscopales*, contains (viii) *Liste d'Alexandrie* (1250–1), which makes use of Coptic as well as other material and gives a very full bibliography.

A brief article in *Oriente moderno*, X (1930), 38, describes a journey of the Orthodox Patriarch of Alexandria to Abyssinia, and another (*ib.*, 94) relates his return.

(*b*) *Hagiography.*

E. A. W. BUDGE, *George of Lydda* (vol. XX of Luzac's "Text and Trans." series), Lond. 1930, xviii, 284, 210, 13 plates, 5 illust. (separately, trans. xviii, 284, plates, illust.). "A study of the cultus of St. George the Megalomartyr in Abyssinia."

P. F. DE' CAVALIERI, *Note agiografiche*, fasc. vii, Rome (1928), IV, 254. Includes notes on the Forty of Sebaste.

W. E. CRUM, *Colluthus, the Martyr and his name*, in *B.Z.*, XXX (1930), 323–7. Analysis of the martyr's passion, notice of two encomia with reference to healings, etc., examination of the various forms of the name in Greek, Coptic and Arabic. C. shows that the equation Κόλλουθος = ⲕⲉⲗⲗⲟⲩⲑ can be accepted. The demotic names *Kllud?*, *Gllud?* on certain bi-lingual mummy labels have Κόλλουθος as Greek transcription.

F. HALKIN, *Les vies grecques de S. Pachôme*, in *A.B.*, XLVII (1929), 376–88. Very important study, directly bearing on the Coptic lives. "Sans parler des textes orientaux (en copte, sahidique, et bohairique, en arabe et en syriaque), il nous reste en grec tout un dossier pachômien" (376).

A. H. KRAPPE, *La leggenda di S. Eustachio*, Aquila (1928), 38, reviewed by P. GROSJEAN in *A.B.*, XLVII (1929), 415–16. The reviewer regards the work as lacking in critical accuracy.

A. H. KRAPPE, *La vision de Saint Basile et la légende de la mort de l'emp. Julien*, in *Rev. belge de phil. et d'hist.*, VII (1928), 1029–34.

P. P(EETERS), *La passion de S. Pansophios d'Alexandrie*, in *A.B.*, XLVII (1929), 307–37, has no bearing on Coptic studies.

E. SCHWARTZ, *Cyril und der Monch Victor*, in *Wiener Ak. Wiss.* (Phil.-Hist. Kl. ccviii, No. 4), (1928), 51. An important study about the dubiously historical archimandrite of Tabennesi who is known only from

the Coptic texts of the acts of the Council of Ephesus. S. proves the existence of a Victor, who may have been the original of the Coptic legend.

COLMAN-NORTON, *Palladii Dialogus de Vita S. Ioannis Chrysostomi*, Camb. (1928).....is reviewed by E. C. BUTLER, in *J.T.S.*, XXX (1929), 70–2, 93, and contains several items bearing on Egyptian monastic history.

(*c*) *Monasticism.*

B. GRANIĆ, *Die rechtliche Stellung u. Organisation der griech. Kloster nach dem Justinianischen Recht*, I, in *B.Z.*, XXIX (1929), 6–34. Necessarily deals with the Apophthegmata, Lausiac History, etc.

D. U. BERLIÈRE, *Le nombre des moines dans les anciens monastères*, in *Rev. Bénéd.*, XLI (1929), 231–61, and XLII (1930), 19–42, is concerned only with western monasticism and makes no reference to the communities in Egypt.

## VI. NON-LITERARY TEXTS.

M. HOMBERT, *Bulletin papyrologique*, III (1927–8), in *Byzantion*, IV (1927–8), 544–68, contains many references to Egypt.

P. JERNSTEDT, *Zwei neue Bruchstücke der koptischen* ΕΡΩΤΑΠΟΚΡΙΣΕΙΣ, in *Aegyptus*, X (1929), 80–6, gives (i) a fragment of the Hermitage containing 2 cols. of 8 lines each on recto, and 2 cols. of 9 lines each on verso; (ii) Codex of Cairo Museum, recto 14 lines, verso 17 lines, with notes and translations.

A. VAN LANTSCHOOT, *Rec. des colophons* (cf. *Journal*, XV (1929), 267), is reviewed by P. P(EETERS) in *A.B.*, XLVII (1929), 406–8, and by W. E. CRUM in *Journal*, XVI (1930), 155–7.

G. MANTEUFFEL, *Epistulae privatae inedituae*, in *Eos*, XXX (1927), 211–15, contains a Christian letter (=P. Berlin 13897); another mentions a Didymus, perhaps that of P. Oxy. 1774.

K. PREISENDANZ, *Papyri graecae magicae*, Leipzig, 1928, xii–200, 3 plates. The Coptic on p. 60 (in III) is new, that on pp. 66, 70–6 (in IV) is from the Paris MS. Quite as interesting is the incidental use of Egyptian words in Greek, not printed in Coptic type. The next volume was to have been ready by Easter, but I have not seen a copy. It is reviewed by F. PFISTER in *Phil. Woch.*, XLVIII (1928), 1395–6, by TH. HOPFNER in *Gnomon*, V (1929), 575–7, by J. KROLL in *D.L.Z.* (1930), 214–19, by O. WEINREICH in *O.L.Z.*, XXXII (1929), 638, by P. COLLART in *Rev. de phil.*, III (1929), 313–14, and (very briefly) by A. D. N(OCK) in *J.H.S.*, XLV (1929), 124.

H. J. M. MILNE, *Catalogue* (cf. *Journal*, XV (1929), 267), has been reviewed by H. A. VAN GRONINGEN in *Museum*, XXXVI (1929), 40.

A. MALLON, *Nouvelle série d'ostraca* ΕΤΜΟΥΛΟΝ, appears in *Rev. de l'Égypte anc.*, II (1929), 129–35.

H. FRISK, *Papyrus grecs de la Bibl. municipale de Gothembourg*, Goteborg, 1929, 59, 2 plates, contains several Christian fragments, some in Coptic and Arabic.

K. PREISENDANZ, *Ein Papyrus in griech. Geheimschrift*, in *Gnomon*, V (1929), 457–8, describes a papyrus of magical purport.

L. SAINT-PAUL-GIRARD, *Adversaria Coptica*, appears in *Bull. de l'Inst.*, Cairo, XXVIII (1929), 25–32 and 99–102.

## VII. PHILOLOGY.

W. E. CRUM, *Coptic Dictionary*, fasc. I (cf. *Journal*, XV (1929), 267), has been reviewed by W. SPIEGELBERG in *O.L.Z.*, XXXII (1929), 921–4, by C. KUENTZ in *Bull. Soc. Ling. de Paris*, XXX (1930), 262–4, by TH. LEFORT in *Muséon*, XLII (1929), 123–4, by S. GASELEE in *Bull. School Orient. Stud.*, V (1929), 611–14 (very fully), and more slightly in *J.T.S.*, XXX (1929), 444–6, and by W. TILL in *Wiener Z. f. d. Kunde d. Morg.*, XXXVI (1929), 305–7.

G. HEUSER, *Die Personennamen der Kopten*, I (Stud. z. Epigr. u. Papyruskunde, Bd. I, 2), Leipzig, 1929, is reviewed by V. BISSING in *Phil. Woch.*, L (1930), 182–4.

L. HOMBURGER, *Les dialectes coptes et mandés*, in *Bull. de la Soc. Linguistique de Paris*, XXX (1930), 1–57, deals with a connexion between Coptic and the Mandingo dialect of Lower Gambia. 1–39, phonology; 39–53, morphology; 53–54, syntax. "Le Mandé qu'on cite volontiers comme un exemple typique de langue négro-africaine, apparaît avec évidence comme un représentant moderne du copte" (54), a thesis which hardly seems proved by the material presented.

H. MUNIER, *La Scala Copte 44 de la Bibl. Nat. de Paris*, Tome I, transcription (Bibl. d'études coptes, II), Cairo (1930), ix+252. This is the long awaited edition of the Saʿidic scala (Greek with Coptic and

Arabic translations), known since Tattam and Peyron, both of whom used it. In three divisions, (i) the biblical vocabulary of John of Samanud, in Saʿidic; (ii) John's "preface"; (iii) the main vocabulary in 27 chapters, partly biblical, partly secular. The most important glossary extant. Paris copte 43 is mostly identical, and the correspondences are given here by Munier.

G. STEINDORFF, *Koptische Grammatik u. Chrestomathie, Wörterverzeichnis u. Literatur* (Porta Linguarum, XIV), reprints the 2nd edit. (1930), xix+350.

W. SPIEGELBERG, *Aegyptologische Bemerkungen*, on Yahuda's book *Über die Sprache des Pentateuch*, appears in *Z. f. Semitistik u. verwandte Gebiete*, VII (1929), 113–22, and deals with Yahuda's theory that Hebrew is a dialect of Arabic corrupted by a period spent in an Egyptian atmosphere. It has some indirect bearing on Coptic. Yahuda's book is reviewed by T. E. PEET in *Journal*, XVI (1930), 157–60, and by P. DHORME in *Rev. Bib.*, XXXVIII (1929), 441–5.

W. TILL, *Altes 'Aleph und 'Ayin im Koptischen*, in *Wiener Z. f. d. Kunde d. Morg.*, XXXVI (1929), 186–96, aims at showing that Akhmimic is not derived from Bohairic.

W. TILL, *Achmimisch-kopt. Gramm.* (cf. *Journal*, XV (1929), 268), is reviewed by L. TH. LEFORT in *Muséon*, XLII (1929), 121–2.

M. A. MURRAY, *Elem. Coptic Gramm.* (cf. *Journal*, XV (1929), 268), is briefly reviewed in *Oriens Christianus*, (1929), 160.

## VIII. ARCHAEOLOGY.

(*a*) *Exploration.*

H. M. DE VILLARD, *Il monasterio di S. Simeone*, I (cf. *Journal*, XIII (1927), 258), is reviewed by P. P(EETERS) in *A.B.*, XLVII (1929), 124–6.

F. LL. GRIFFITH, *Christian Documents from Nubia* (cf. *Journal*, XV (1929), 269), is reviewed by F. C. BURKITT in *J.T.S.*, XXXI (1930), 209–11, by A. WIEDEMANN in *O.L.Z.*, XXXII (1929), 344–5, and by A. SCHARFF in *O.L.Z.*, XXXIII (1930), 28–9.

CRUM-WINLOCK-WHITE, *Monastery of Epiphanius* (cf. *Journal*, XIII (1927), 257).

(*b*) *Art and Architecture.*

C. DIEHL, *L'art chrétien* (cf. *Journal*, XV (1929), 270), is reviewed by G. STUHLFAUTH in *O.L.Z.*, XXXIII (1930), 127–9, by G. SOTERIOS in *Byz. Neugr. Jahrb.*, VI (1928), 252.

CL. KOPP, *Aus Vergangenheit und Gegenwart der Koptischen Kirche. Die charakteristischen Eigenschaften der Kopt. Kirche*, appears in *Theol. u. Glaube*, Paderborn, XXI (1929), 482–503.

P. ANGELICUS M. KROPP, *Die Kreuzigungsgruppe des koptischen Papyrus Brit. Mus. MS. Or. 6796*, in *Oriens Christianus* (1929), 64–8, illustrates the conventional representation of the crucifix in Coptic art.

(*c*) *Textiles.*

N. P. TOLL, *Tissus coptes*, Prag (1928), 44, 11 plates, 1 in colour.

(*d*) *Folklore.*

S. GRÉBAUT et A. ROMAN, *Un passage démonologique du Qalementos*, in *J.A.*, CCXI (1927), 331–9. Noted in *B.Z.*, XXIX (1929), 119, "Q. ist ein wichtiges, aus dem Arabischen übersetztes Denkmal der pseudoklementinischen äthiopischen Lit., das in 7 Büchern die Unterweisungen des Petrus an seinen Schüler Klemens enthält."

F. LEXA, *La Magie* (cf. *Journal*, XIII (1927), 259), is reviewed by T. G. ALLEN in *Amer. J. Sem. Lang. and Lit.*, XLIV (1928), 58–61, and by J. TOUTAIN in *J. des Savants* (1929), 126–34.

A. L. SCHMITZ, *Das Totenwesen der Kopten*, appears in *Ä.Z.*, LXV (1930), 1–25. The literary material (2–8), the evidence of the monuments (8–23), and history of religion (23–5).

C. A. WILLIAMS, *Oriental affinities of the legend of the Hairy Anchoret* (cf. *Journal*, XV (1929), 271), is reviewed (not favourably) by P. P(EETERS) in *A.B.*, XLVII (1929), 138–41.

(*e*) *Inscriptions, etc.*

A. TULLI, *Le stele copte del Museo Egizio Vaticano*, appears in *Riv. di arch. cristiana*, Rome, VI (1929), 126–44, and 14 figs.

## ADDENDA.

### 1. Biblical.

O. Burmester et E. Dévaud, *Les Proverbes de Salomon*, Vienna (1930), xvi+68. Containing Prov. 1–14 and Proverb lessons from the Catameron. Older texts than Lagarde: collated text, very full critical apparatus: many variants merely errors in spelling.

### V. History.

E. W. Brooks, *The Patriarch Paul of Antioch and the Alexandrine Schism of 575* in the *Heisenberg Festschrift*, in *B.Z.*, xxx (1929–30), 468–76.

A. Steinwenter, *Zur Lehre von der Episcopalis Audientia*, in the same *Heisenberg Festsch.*, 660–8, deals with Byzantine law: *cf.* Cod. I. 4, 7: Pap. Lond. Inv. 2217, and H. I. Bell in *Byzant.* (1924), 139.

A. Steinwenter, *Die Rechtsstellung der Kirchen und Kloster nach den Papyri*, is an offprint from the *Z. der Savigny-Stift.* (*Kan. Abt.*, xix, 1930), 50.

### VI. Non-Literary Texts.

P. A. M. Kropp, *Liturgie in Koptischen* (1930), 60, offered as a thesis for a doctorate in Bonn, is a portion of a larger book on "Select Magical Texts" in three vols. now in the press. It includes new texts, also translations (not texts) of magical material found elsewhere. This offprint contains sect. 315–54 and 372–412 of the larger volume. It deals with (*a*) Ecclesiastical exorcism and prayers against demons; (*b*) Church and magical benedictions, consecration of oil, etc., for exorcism, blessing of nets, etc., cursing of animals; (*c*) Magical and religious prayers.

### VII. Philology.

W. E. Crum, *Coptic Dictionary*, is reviewed by H. Kees in *Gotting. gelehrter Anz.* (1930), 90–5.

W. Till, *Koptische Chrestomathie für den Fayumischen Dialekt*, Wien (1930), ii+30. First 9 pages grammatical introduction: pp. 9 ff., texts, biblical and other, arranged according to purity or otherwise of dialect. All have been printed before.

S. Gaselee, *Greek words in Coptic*, in *Heisenberg Festsch.* (cf. above), 224–8.

### VIII. Archaeology.

M. S. Dimand, in *Bull. of Metrop. Museum of Art*, May 1930, 126–31, 7 illustr., describes a *Special Exhibition of Coptic and Egypto-Arabic Textiles* in the Museum.

This *Bulletin* refers (p. 156) to an article on *Coptic Tunics* in the *Metropolitan Museum Studies*, ii, Part ii, but I have not been able to see a copy of these *Studies*.

A new courtyard has been added to the Coptic Museum in Cairo.

A brief article in the *Observer* for 10/11/29 deals with *Abyssinia and the Coptic Church. The Language Problem.*

J. Dunbar, *Betwixt Egypt and Nubia*, in *Anc. Egypt* (1929), 108–117, 6 illust., contains a passing reference to Christian remains.

# NOTES AND NEWS

During the coming winter the Society hopes to carry on work simultaneously at the three sites in its charge—Armant, El-'Amarnah and Abydos.

The expedition to Armant will be in charge of Mr. Oliver H. Myers, who superintended the actual excavations there last winter. He will have as assistants Mr. H. W. Fairman, who was one of last season's staff, Mr. T. J. C. Baly, who worked under Dr. Frankfort at Abydos in 1925–26, Mr. W. B. K. Shaw, who, with Mr. D. Newbold, discovered the Oasis of Merga (Makhaila) in 1927, and who is to be responsible for the survey work, and Mr. E. A. Buchanan, who has previously worked in Palestine and Transjordania under Mr. J. W. Crowfoot.

The main work of the winter will be the completion of the Bucheum, and the clearing of the Baḳarîya and the Roman Village, all of which excavations were begun last year, and, if time permits, the exploration of two predynastic cemeteries, which may prove of considerable importance.

The whole of this work is being financed by the President, Dr. Robert Mond, who has in addition ensured the comfort of the staff by building them a house, which he proposes to equip with an electric-light plant and a pumping apparatus.

The excavations at El-'Amarnah, which have been suspended since Dr. Frankfort closed down in the spring of 1929, are to be re-opened early in November under the direction of Mr. J. D. S. Pendlebury, who worked on that site with Dr. Frankfort and who has since been appointed Curator of Knossos. He will have the assistance of Mrs. Pendlebury, who was also there with him in 1929, Mr. H. Waddington, a trained architect, Mr. C. J. C. Bennett, who has taken a course in Egyptology at University College, and Mr. G. P. Phillips. He also hopes to secure for a short period the help of Mr. Seton Lloyd, who was responsible for the excellent plans and reconstructions published by Dr. Frankfort in his article on El-'Amarnah in *Journal*, XV.

This work is dependent on the subscriptions of Members and others interested in this particular site; the expedition has been made possible this season largely through the generosity of Mrs. Hubbard, who has subscribed two thousand pounds during the last two years.

At Abydos Miss Calverley and Miss Broome will continue the copying work in the temple of Seti I upon which the Society has now been engaged for three seasons. Great progress has been made towards the completion of the first volume, and both Miss Calverley and Miss Broome have spent a considerable portion of the summer months assembling and finishing the drawings of the scenes from the seven chapels, with the result that forty-one of these plates are already in proof. The coloured plates, however, are not yet begun, and these and the architectural details of doors, ceilings, etc. which were not originally included in the scheme for this volume, but have since been

incorporated, will form the principal work of the coming winter. Further copying and photographing will also be undertaken.

The volumes are to be uniform with those which the Oriental Institute of the University of Chicago is bringing out on the Temple at Medînat Habu.

By the time these notes appear Volume XXII of our Graeco-Roman Memoirs will have been issued. It is by A. S. Hunt and J. Johnson, and is called *Two Theocritus Papyri*. The two documents with which it deals are the famous papyrus from Antinoe and the more fragmentary one found previously at Oxyrhynchus. The publication forms an important contribution to the textual criticism of the *Idylls*. It contains transcriptions of the texts, with a commentary and two collotype plates.

The Committee of the Society has arranged the usual series of lectures for the coming winter. They will be held in the Meeting Room of the Royal Society, Burlington House, by kind permission of the Council.

The first two lectures will be as follows: Thursday, October 9th, 1930, at 5 p.m., Professor F. Ll. Griffith, on Christianity in Nubia; Wednesday, November 12th, 1930, at 8.30 p.m., Mr. R. W. Sloley, on Primitive methods of measuring time, with special reference to Ancient Egypt. The dates and titles of the other lectures will be announced later.

Members of the Society resident in the British Isles receive for each of these lectures a transferable ticket admitting two persons. A limited number of tickets are also available for non-members; for these special application should be made to the Secretary.

On the 19th of June last our President, Dr. Robert Mond, and Mrs. Mond gave a dinner at the Savoy Hotel in celebration of Professor Sir Flinders Petrie's fiftieth year of Egyptian research. It may be doubted whether so many persons directly interested in Egyptology have ever before in this country been gathered together in one place. After dinner the guests, over two hundred in number, moved into an adjoining drawing-room, where many old friendships were renewed and new ones established. The host and hostess can have been under no doubts as to the extent to which this thoughtful arrangement was appreciated, for it was after midnight when the party broke up.

We congratulate Dr. Nelson and his colleagues on the appearance of the first volume of their great publication of the temple of Ramesses III at Medînat Habu. In a vast undertaking such as theirs is, it was to be expected that the first few seasons must be a time of trial and experiment rather than of results. Now, however, their organization is complete and publication should proceed steadily. The present volume leaves us in no doubt as to the breadth of their conception and their ability to carry it out.

Sir Arthur Evans has produced yet another volume, Vol. III, of his *Palace of Minos at Knossos*. The speed at which this has followed on the two parts of Volume II is a remarkable tribute to the undiminished vigour of Sir Arthur's mind. Once again we marvel at the fullness of the observations which must have been made at the time of the excavation itself, the thoughtful study which has been devoted to even the smallest points, and the wealth of comparative material brought forward from other regions.

We regret that in announcing Professor Newberry's appointment to a professorship in the Egyptian University last year we gave the title of his chair incorrectly. Its correct title is that of Ancient Egyptian History and Archaeology.

The death of Eduard Meyer is a severe blow to the study of Ancient History in all its branches. His combination of breadth of outlook with capacity for detail made him unique as an historian. We hope in our next number to publish an account of his life and an appreciation of his contribution to Ancient History.

Dr. H. R. Hall asks us to print the following note:

In the last volume of the *Journal* (XV, 56) Mr. Winlock notes that Prof. E. Meyer has in the new edition of his *Geschichte des Altertums*, II (1928), 110 ff. criticized "the ingenious but rather artificial reconstruction of Hatshepsut's period which has been current during the last thirty years," and has reconstructed "the lives of Hatshepsut and her immediate connexions in terms almost identical with those used in our Report" (*Bull. Metropolitan Museum, N.Y.*, Feb. 1928, II, 46 ff.), with the exception that he regards Tuthmosis III as son of Tuthmosis I, whereas Mr. Winlock ("in agreement with Maspero, Naville, and Petrie") regards him as son of Tuthmosis II. May I point out that I also, in *The Ancient History of the Near East* (1913), 286 ff., criticized the "current" theory of Sethe and Breasted sixteen years ago at some length, and adopted a simplified story not in entire agreement with either Naville or Sethe, but incidentally regarding Tuthmosis III as son of Tuthmosis II (287, n. 1; 288; 288, n. 1)? I took the reference on the statue of Inebny in the British Museum to Tuthmosis III as the "brother" of Hatshepsut as indicating marital relations between them, which the terms "brother" and "sister" often seem to do. I still see no more reason to abandon this view and accept that of Prof. Meyer than Mr. Winlock does.

Mr. W. E. Crum writes:

On the 10th of August died, at the age of 81, the Rev. George Horner, a scholar to whom Coptic studies owe a very heavy debt. On withdrawing, in 1891, from parish work, Mr. Horner, whose interest remained primarily theological, decided upon the Coptic New Testament as a promising and by no means overworked field of labour (see Sir Ernest Budge's letter to the *Times*, Aug. 14th). For a short time he studied at Berlin with Mr. (afterwards Professor) Steindorff, but he was mainly self-taught, and without teachers he further attained to a working knowledge of the other languages needful for his purpose, Arabic and Ethiopic. His great edition of the Bohairic New Testament in 4 volumes, then, with still more elaboration, that of the Sa'idic in 7 volumes, took in all 26 years to appear. One has but to open any of these volumes to realize the immense preparatory labour involved, where manuscripts—for the Sa'idic version nothing but scattered fragments—had to be sought out and copied or collated in all the libraries of Europe and Egypt and the results critically presented. Opinions will differ as to the system adopted in publication, where, especially in the Sa'idic volumes, the text itself seems to have interested its editor less than the exhaustive textual apparatus, and it may be doubted whether the unflinchingly literal translation really serves its intended purpose as a substitute for the Coptic text; philologists, however, agree as to the high value of the vast collection of material which Horner's untiring labours have made available.

# NOTICES OF RECENT PUBLICATIONS

*Histoire des grands prêtres d'Amon de Karnak jusqu'à la XXIe Dynastie.* Avec 5 planches.
*Inscriptions concernant les grands prêtres d'Amon, Romé-Roÿ et Amenhotep.* Avec deux planches. Par GUSTAVE LEFEBVRE.

All Egyptologists will welcome the appearance of these works, which fill a serious want long felt by students, who hitherto have only had at their disposal the treatment by Wreszinski, *Die Hohenpriester des Amon*, an extremely useful little book but one now rendered insufficient by the mass of material which has come to light since 1904.

M. Lefebvre divides the story of Amūn's High-Priests into three parts; from our earliest acquaintance with the priesthood in the Middle Kingdom down to the acquisition of supreme power by Herihor in the Twenty-first Dynasty; the period of the priest-kings belonging to Herihor's family and the line of Bubastites; and lastly the epoch of Divine Votaresses from the reign of Osorkon III onwards. It is the first part only with which the author is concerned in this work.

Chapter I contains a general account of the constitution of the Amūn priesthood. M. Lefebvre is in full agreement with the view that the lectors were of the same rank as the *weʿeb* priests, but thinks that they constituted an independent order (p. 16). One is surprised, however, to see that he follows the old interpretation of *wnwt ḥt-ntr* as "lay-priests," for the evidence is far more in favour of this expression simply meaning "the temple-staff" and including all orders[1].

After describing the offices of High-Priest and Second Prophet, the methods of their appointment and the large households which they were accustomed to keep up, M. Lefebvre concludes this introductory chapter with an account of the female clergy, the "god's wife," "singers of Amūn," etc.

In the second chapter we are presented with a highly useful list of all the numerous personages who went to make up the vast concourse which administered the Theban god's domains, each title being printed in hieroglyphs with translation, and bibliography in footnotes. It is a formidable array, and one is astonished at the variety of the titles, which range from the man who "boils the oil of the House of Amūn" to a "chief physician" attached to the temple. The author then proceeds to tell us how little by little during the Eighteenth Dynasty the High-Priests succeeded in securing for themselves the management of this temporal power until, under Amenophis II, the High-Priest Mery obtained sole control over the divine estates and treasuries.

Chapter III contains a brief résumé of all that is known of the Priesthood of Amūn before the Eighteenth Dynasty, the most important fact being that, although we have evidence of the regular constitution of the priesthood in the Middle Kingdom, of the existence of *weʿeb* priests and prophets and even of a "Second Prophet of Amūn," we have no actual instance of a "First Prophet." Indeed Sesostris III in his well-known instructions to the Karnak temple with regard to offerings for Nebḥapet Mentuhotep addresses the personage in question, apparently the High-Priest, simply as "Prophet of Amūn."

The shadowy Khonsuemḥeb, a High-Priest who lived at some time between the Fourteenth and Seventeenth Dynasties, the central figure of a Twentieth Dynasty tale, is also dealt with, and M. Lefebvre regards the genealogy given in the tomb of Userḥēt as actually true, holding that, if we understand *sꜣ* and *it* to have the meaning of "descendant" and "ancestor" respectively, there is no reason why there should not be lineal connexion between Khonsuemḥeb, the Vizier Imḥotep, the High-Priest of Amūn Ḥapuseneb, and finally Userḥēt himself of the Nineteenth Dynasty.

Chapters IV and V recount the part played by the High-Priests during the Eighteenth Dynasty, with many corrections of and additions to statements of previous writers. At the beginning of the Dynasty under Aaḥmes I Siamen is to be erased from the list of High-Priests (pp. 68 and 89) and Minmentu to be added, probably after Thutiy.

[1] See Blackman in Hastings *Enc. Rel. Eth.*; article, *Priest, priesthood (Egyptian)*, VIII, 3.

In the time of Ḥatshepsut Panefer may have come after Ḥapuseneb (p. 82), and the widespread notion that Menkheperrēʿsonb, the pontiff of Tuthmosis III, was the son of the Vizier Rekhmarēʿ is an error (p. 85). Aaḥmose is to be inserted probably between Panefer and Menkheperrēʿsonb, but his son Rēʿ was High-Priest not of Amūn of Karnak but of that god in certain temples on the west bank of Thebes (pp. 91 and 110).

There are, however, several criticisms of this section which we feel bound to make. M. Lefebvre takes for granted Sethe's elaborate theory of the Tuthmosid succession (pp. 72 ff.). Surely further study in recent years has rendered this reconstruction very doubtful, the exhaustive investigations of Winlock at Dêr el-Baḥrî having provided us with a simpler and far more likely story[1]. Secondly, the retention of the form Saakarēʿ (p. 107) for the name of Akhenaten's successor is strange considering that it has now been definitely established[2] that it should be Smenkhkarēʿ. But above all we must profoundly disagree when M. Lefebvre assigns the tomb of Raby-Rabyna "à une époque postérieure à la XXVe dynastie." First, the occurrence in the tomb of a carved wooden roundel of Mycenaean origin[3], which the author does not mention, dates the owner to about the end of the Eighteenth Dynasty. Secondly, the gold ring of Akhenaten indisputably assigns him to that of Pharaoh's reign, and lastly the name Raby-Rabyna itself would be found just at that period. These three pieces of evidence may be taken as conclusive. This Semite, however, as M. Lefebvre rightly points out, was certainly not High-Priest of Amūn at Thebes, but in the neighbourhood of Memphis.

In Chapters VI–VII, after dealing with the obscure period extending from Horemheb to Ramesses II, M. Lefebvre gives us a carefully considered account of the High-Priests during the Nineteenth Dynasty.

Most important is the section on Romê-Roÿ, in which the author once and for all proves that the bearers of these two names were one and the same person, it being unthinkable that the two statues from Karnak, on both of which the names Romê and Roÿ are alternative, could have been dedicated to any but a single man. Roÿ, then, becomes a "diminutive" form, like Meḥ for Amenemḥeb and Huy for Amenophis[4]. This at once disposes of the former theory[5] that the High-Priesthood became hereditary at this time, and that Romê passed on his office to a son called Roÿ. Nor can the prayer of Romê-Roÿ that his son may stand in his place be proved to be anything but the usual pious wish, or taken for evidence that his son Bakenkhonsu succeeded as High-Priest of Amūn. Romê-Roÿ, however, deserves his reputation as one who advanced the high-priestly power, for, as M. Lefebvre points out (p. 158), he was the first to recover the title "chief of the prophets of Upper and Lower Egypt" of which the High-Priests of Amūn were deprived during the reign of Ramesses II, and by his inscriptions at Karnak, executed in his own name, he shows that the power of the Amūn clergy, somewhat restricted by the Crown ever since the days of Akhenaten, was again on the rise.

Another very interesting point made by M. Lefebvre is that the towers of the eighth pylon were used as residential quarters in the neighbourhood of the actual dwelling of the High-Priests, this being proved by two inscriptions found by himself in the eastern tower of the pylon, and relating to two members of Romê-Roÿ's entourage. They are published in the volume of inscriptions, pp. 40–41.

In the last three chapters (VIII–X) the author describes the gradual rise of the High-Priesthood during the Twentieth Dynasty, which culminated in the triumph of Ḥerihor, the most important correction being that (pp. 185 and 205) of the statement sometimes made that Amenophis married Isis, a daughter of Ramesses VI, and that therefore Ḥerihor, being his son (for which there is no proof either), was a descendant of the royal line[6]. The volume concludes with full indices and a "Nomenclature" which enumerates the names of all the High-Priests within the period studied, the sources for their lives, the families of which they came, and the religious and civil titles which they bore.

The second volume collects all the inscriptions relating to the pontiff Romê-Roÿ and the most important relating to Amenophis, many of these being published here for the first time, and others corrected and improved after the author's own copies; we have now, for instance, a revised text of the

[1] See Winlock's reconstruction of events in *Bull. Metr. Mus.*, 1925–1927, 47 ff.

[2] Newberry, *Journal*, XIV, 5-6. Also, during the Egypt Exploration Society's work at El-ʿAmarnah in 1928–9, a clay sealing was found which fully confirms this as the correct form.

[3] Figured in H. Th. Bossert, *Altkreta*, 350.

[4] See Sethe, *Ä.Z.*, XLIV, 87 ff.

[5] Breasted, *Ancient Records*, III, § 618, and in *Cambridge Anc. History*, II, 184.

[6] See e.g., *Cambridge Anc. Hist.*, III, 253.

highly important "commemorative inscription" of Roy (pp. 32–33), to name only one of the useful texts with which M. Lefebvre presents us. All these texts are accompanied by accurate translations, philological notes and general commentary, which go to enhance the value of this appendix to the *Histoire*.

In the *Histoire des grands prêtres d'Amon de Karnak* M. Lefebvre has given to the Egyptological world a standard work of reference which will remain such for many years to come.

ALAN W. SHORTER.

*Die Entstehung der Pyramide, an der Baugeschichte der Pyramide bei Mejdum nachgewiesen.* Von LUDWIG BORCHARDT. Berlin, 1928.

The study of Egyptian architecture, more especially of the technical side of it, owes much to Dr. Borchardt. Not only has he an intimate knowledge of his subject and a power of imagination which enables him to make the most of his observations, but he writes in a style which makes even the most technical portions of his exposition intelligible to the layman.

The present work puts once for all on a firm basis the much discussed questions of the various changes in plan which were made during the building of the Mêdûm pyramid and of the origin of the pyramid-form itself as a royal burial monument.

Borchardt does full justice to the work of his predecessors, notably Petrie and Wainwright, on the pyramid at Mêdûm. He starts out from the question "What is the explanation of the two bands of undressed blocks in the otherwise smoothed surface of the lowest of the three surviving steps?" His answer is that the structure as at first planned and constructed possibly consisted of nothing more ambitious than a two-storey mastaba, and afterwards underwent a series of enlargements by the addition of successive "mantles" of stone. The evidence for the original building and its earliest modifications is locked up in the core of the pyramid. Of the last three developments, called by Borchardt E 1, E 2 and E 3, clear traces have been revealed by mediaeval and modern depredations in search of building-stone. E 1 consisted of a step pyramid with seven steps, E 2 of a step pyramid with eight steps, and E 3 of an ordinary pyramid with smooth sides.

On this hypothesis the existence of the upper rough band in the lowest surviving step is explained as follows: In E 1 that step ended with the uppermost course of smoothed blocks beneath the rough band. In E 2 this step was considerably raised in height. Of the raised portion the upper part formed a step in the new pyramid, and was therefore smoothed as we see it to-day; the lower part, however, like the old smooth portion below it, was now masked by a new step built on outside, and, being invisible, was naturally left unsmoothed.

Precisely the same explanation, but one stage further back in the history of the structure, accounts for the lower rough band. Thus the stripping of blocks from the pyramid by modern and mediaeval builders, while reducing it to its present curious form, has incidentally left on the lowest step traces of no fewer than three constructional periods.

Borchardt very cleverly follows out the traces left by the various enlargements in the passage leading to the underground burial-chamber. He gives good reasons for believing that Sneferu, the builder of this pyramid, was buried not here but in the so-called Red Pyramid at Dahshûr, which was built after the pyramid at Mêdûm.

He connects the curious vertical depression observed long since by Petrie in the two lower steps of the east face with the beginning of a ramp found by Wainwright over 300 yards from the pyramid. He shows that the depression marks the point where this construction-ramp met the face of the pyramid in stage E 2. He thinks, however, that one ramp would not suffice for the carrying on of the work, and assumes at least two others, one of which has left a slight trace on the pyramid face at the south-west corner.

A section is next inserted by Herr Croon in which are some ingenious calculations as to the number of men employed and the time necessary for the work assuming the existence of one and two ramps respectively, devoted solely to the dragging up of stone, with another ramp or ramps for other purposes. The duration of the work is found to be 33 years with one ramp and 20 with two. The latter, Borchardt remarks, would agree approximately with the fact that blocks apparently from the E 3 period of construction bear the quarry date Year 17; he adds, however, that the longer period of 33 years would not be out of place should the numeral 17 on the blocks be intended to indicate Year of the 17th numbering of cattle, *i.e.*, 33rd or 34th year of the reign.

The success of his researches at Mêdûm led Borchardt to attempt a similar examination of the

Step-Mastaba of Zoser at Saḳḳârah. Here three stages of construction can be traced. The first may have been a large but simple mastaba, possibly finished off above in the style of a house-roof. The next stage consisted of the clothing of this with a mantle less in height than the original building, giving it the form of a mastaba or house on a podium. The last stage involved a complete alteration of plan, which almost doubled the area of the base and produced the step-mastaba known to us to-day.

Chronologically Borchardt would place the Blunted Pyramid at Dahshûr between the Step-Mastaba of Zoser and Sneferu's pyramid at Mêdûm. He agrees with the suggestion made that it may possibly be the tomb of King Hu. He believes that the immense brick mastaba found by Garstang at Bêt Khallâf has no claim to be considered as a tomb of Zoser, but belonged to one of his nobles, who received funerary gifts from the royal vineyards, etc.

Borchardt's conclusion, which seems to be justified by the evidence he brings forward, is that the pyramid is not a form which established itself as the type for a royal tomb by reason of any inherent suitability; it was evolved very gradually, and even indirectly, by the efforts of several generations of architects, and the determination of its final form may have been almost a matter of accident.

T. Eric Peet.

*La mise à mort du dieu en Égypte.* Par A. Moret. Paris, Geuthner, 1927.

This book is a reprint of the Frazer Lecture delivered at Oxford in 1926, and, as suits its origin, is an examination of the views on Osiris given in *The Golden Bough*.

Starting from Frazer's view that men find themselves dependent on nature and so try to control it, firstly by means of spells and later by the sacrifice of a god, M. Moret sets out to discover whether proofs of this theory are to be found in Egypt. In the first place (Chap. II) he finds ample proof that spells were used to control the Nile—though he notes that none of these have actually survived—and draws a comparison between the throwing into the river of statues of male and female Nile-deities and the custom of throwing a maiden into it in Moslem times. It is perhaps worth noting here that the "Nile" which, he says, pursued Bata's wife in Pap. D'Orbiney is actually the sea.

Proceeding, he discusses certain rites connected with harvest and suggests that the Min-festival of the first month of summer is a sacred drama of the putting to death and resurrection of the spirit of corn and fertility. He draws an interesting comparison between the *stȝ·t*, the later name of which, *mr·t*, he suggests, means "The Beloved," and the mound of earth surmounted with corn washed away at the later ceremony of "Cutting the Dyke," noting that this mound was called the *'arûṣah* or "fiancée." When he discusses the sorrow shown at the time of sowing I cannot help feeling that he lays too much stress on the song of the shepherd containing the lines "He talks with the fish and greets the oxyrhynchus." This hardly seems to mean that the fish are eating him, though *Lebensmüde* 66 might be quoted in support. In the description of the Rites of the Barley-images there is a slip which I imagine is entirely accidental; the rites are said to culminate in the festival of *ḫbs tȝ* on the thirtieth of Khoiakh, whereas they actually culminate in the Raising of the *Ḏd*-pillar on the 30th of the month, the *ḫbs tȝ* falling on the 22nd. *Cf.* the review referred to below.

The next point is the daily ritual, which M. Moret assumes to represent the resurrection of Osiris, and he passes from this to an examination of the evidence for the slaughter of gods. The Apis is his starting-point, and he collects the classical evidence for the killing of the king until he finally arrives at the Sed-festival, which he takes to be the remnant of a ceremony at which a king in failing health was killed and a successor appointed. There is a certain amount of evidence for this view, and one might compare the Roman Emperors' pretence of being reappointed to office every ten years. The evidence adduced by M. Moret is not, however, of a very convincing nature, as he begins by perpetuating the old mistake that the king at the Sed-festival was Osiris. The connexion between the death of Osiris at the age of 28 and a 30-year (apparently) festival is hard to see; this 28 years always seems the strongest evidence in favour of there having really been a king Osiris around whom other stories and legends had collected, since 28 years seems such a curious age to be chosen if it is fictitious.

In conclusion one can but warn all readers that M. Moret ignores the important review of Frazer's *Attis, Adonis and Osiris* by Dr. Gardiner in this *Journal*, II, 121 ff. This omission has a very damaging effect on the book, as a large amount of it is based on evidence which is shown in the review to be either untrue or misinterpreted.

T. J. C. Baly.

*Dramatische Texte zu altaegyptischen Mysterienspielen*, I. *Das "Denkmal memphitischer Theologie" der Schabakostein des Britischen Museum*. Von KURT SETHE, Leipzig, 1928.

Professor Sethe in the preface to this important work on the religion of Ancient Egypt, one of the most important that has ever been published, rightly expresses his indebtedness to Professor Erman, whose admirable treatise on this difficult text we had come to regard as almost the final word on the subject.

By collating the Breasted-Erman version of the text with a squeeze made by Lepsius, which was preserved in the Berlin Museum, but has now unfortunately been lost or mislaid, and two new squeezes supplied to him by the British Museum authorities, Sethe has obtained a certain number of new readings. Thanks to these, but much more to his profound knowledge of the Pyramid Texts and of Old Egyptian in general, he has been able greatly to improve upon Erman's translation. Moreover, protracted investigations have led him to a number of new conclusions as to the purpose and date of the text, and the relationship of its different sections to one another, conclusions that are of the greatest interest not only to Egyptologists, but to all students of the religion and history of the Ancient World.

Erman regarded the square fields under ll. 10*a*–12*a*, and those followed by one or two words under ll. 13*a*–18*a*, as marking further subdivisions of his Section A of the text, though he had to own that taken thus no sense could be made of them. Sethe, however, convincingly shows by reference to the Ramesseum Dramatic Papyrus, the so-called Lists of Offerings, and the version of the Rite of Opening the Mouth preserved to us in the tomb of Petamenōpe, that these square fields contain what we call stage-directions. He also maintains that the one or two words in rectangular fields following the stage-directions in ll. 13*b*–18*b* actually continue the speeches of Kēb to the Ennead in ll. 13*a*–18*a*. That his view is correct is indicated by the fact that these words taken thus no longer remain meaningless as they did when left isolated; moreover, similar instances of the text of a speech being broken by stage-directions occur in the Ramesseum Dramatic Papyrus, *e.g.*, ll. 102–103.

Equally convincing is his argument that Erman's Section C of the text is not a commentary on his Sections A and B, and of a later date than these, but that the whole text stands now in the form in which it was originally composed, a series of dialogues linked together by a continuous narrative. This arrangement finds a complete parallel in the above-mentioned Ramesseum Papyrus, in which each scene is preceded by a narrative beginning with "It happened that," as, indeed, do certain of the narratives in our text. The *Denkmal memphitischer Theologie* is therefore one of those religious dramas which we know to have been regularly performed in Egyptian temples on the occasion of great festivals.

Sethe supposes that the narrative portions were recited by a lector (*ḥry-ḥb*), the dramatic episodes being enacted by players who declaimed their speeches to the accompaniment of the gestures and movements indicated in the stage-directions. Such a performance, he aptly points out, bears a close resemblance to the mediaeval miracle plays, which also consisted of a series of dramatic episodes linked together by a narrative read by a priest, and to the modern film-drama with its alternating captions and moving pictures.

Now for Sethe's view as to the age of the play and the aim of its author. It is to be assigned on linguistic grounds to the same period as the Dêr el-Baḥri texts which treat of the divine origin of the king and his elevation to the throne, which are the oldest Egyptian texts known to us and date probably from the very beginning of Egyptian history.

The fact that the Apis, essentially a Memphite god, is not mentioned in such a context as ll. 59–61 (p. 68) assigns the author to the first half of the First Dynasty, for though Manetho asserts that the Apis and other animal gods were not admitted into the Egyptian Pantheon till the beginning of the Second Dynasty, the Palermo Stone shows that there was a recognized cult of the Apis as early as the second half of the First Dynasty.

In view of this linguistic and archaeological evidence, and of the fact that the object of the play obviously is to magnify Ptaḥ and Memphis at the expense of the sun-god and Heliopolis, Sethe comes to this conclusion: our text is not a Memphite theological work of indefinite date, but the religious dogma for the new capital Memphis, here contrasted with the old Heliopolitan dogma dating from prehistoric times; a new dogma with a political background, such as was correspondingly propounded when Heliopolis became the capital of the realm, and as later again was propounded by Amenophis IV when he established his new capital at El-'Amarnah. Thus, if not dating from the reign of Menes himself, the *Denkmal memphitischer Theologie* cannot have been composed much later.

The way in which the Heliopolitan dogma is dealt with in our text shows that it is older than the Memphite. Consequently, if Sethe's dating of the text is correct, the period of the political and religious

predominance of Heliopolis must, as Sethe has long maintained, be placed in the predynastic age. Further evidence for the high antiquity of this Heliopolitan predominance is afforded by the fact that the Heliopolitan dogma was so deeply rooted in the minds of the Egyptians that, even after the Memphite priesthood had expounded their highly intellectual conception of the origin of the world, it still remained the more usual and generally held dogma, lasting as long as the Egyptian religion itself.

The importance of our text for the history of the Egyptian religion and the intellectual history of mankind in general can hardly be over-estimated. The manner in which it has assimilated and at the same time entirely transformed the old Heliopolitan teaching with its gross account of the creation of Shu and Tefĕnet is most remarkable. As Sethe says, the rôle which it assigns to heart and tongue in creation, and the pantheistic activity which it ascribes to the Creator in the heart and tongue of living beings as their motive principle, display an intellectual conception of the connexion of things not to be expected at so early a date. In this theory of the rôle played by heart and tongue we have, as Breasted has also seen (*Á.Z.*, XXXIX, 54), a foretaste of the doctrine of the Logos.

The version preserved to us of this ancient text was inscribed by the order of King Shabako (*circa* 700 B.C.) on a monumental granite slab, which was erected in the temple of Ptaḥ at Memphis. The inscription was probably still standing in its place and being read by learned priests even in the Ptolemaic period, and through them the ideas of the ancient Memphite priestly teachers may have found their way, in some form or other, into intellectual circles in Alexandria, where they would have undergone further modification. Thus it is not altogether fantastic to suggest that the *Denkmal memphitischer Theologie* may, indirectly of course, have been responsible for the Logos doctrine of Philo.

Sethe's notes on the text are full of new philological and lexicographical information, and many of them will prove most helpful to students of the Pyramid Texts and will make them all the more eager for him to publish his promised translation (with commentary) of those important religious documents.

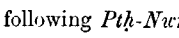
Deserving of special mention are the notes on the following points, philological and otherwise : Ptaḥ and Atum as the embodiments of Egypt, p. 21. The meanings of *ỉr*ḥ in the Pyramid Texts, p. 23. The place-name *Św*, p. 25. *Wt, wtw*, p. 29. *T;-ṯnn*, p. 33, where among much other information it is pointed out that Tebtūnis is derived from *T;-nbt-Tn*, *ṯnn* being shortened to *tn* and, as was already the case in the Eighteenth Dynasty, the preceding *t;* being omitted. *D̲w*, p. 35, the old masc. infinitive of *wdỉ* "to place." *M dd* "without delay," pp. 37 f. The Memphite Ennead, p. 48. *D̲dṯ*, var. *ddk*, "also," p. 53. *Ḥmwśwt*, pp. 62 f., with accompanying photograph of a hitherto unpublished monument in the Hildesheim Museum. The compound preposition *ḥr-ḫtw* "upon," "over," pp. 69 f. *Šnwt ntr* "Granary of the God" and *ʿnḫ t;wy* "Life of the Two Lands," pp. 71 and 72. These names were assigned to Memphis, or to the royal residence therein, because it was now the administrative centre and great store-city of the whole country. *Mnḫ m* "marvel at," p. 73. *Phr·śn tp*, p. 74, perhaps meaning "they paid attention." *R tr* "at the right moment," "at once," p. 74. *D̲śrw*, p. 74, with following genitive.

The following examples will show how far Sethe has advanced beyond Erman in his understanding of the text :

P. 22. He is almost certainly right in rendering *ỉn 'Itmw*, l. 6, by "so sagte Atum." As he points out, Erman's translation "Atum ist es, der die Gotterneunheit gebar" does not agree with other passages in this text which name Ptah and not Atum "fashioner of the gods" (*mś ntrw*), "creator of the gods" (*ỉr ntrw*), and "father of the gods" (*ỉtf ntrw*).

P. 35. From the traces in Breasted's facsimile he brilliantly conjectured that  should be restored above  in line 15*c*, and this was confirmed by the squeeze. *Šnʿ*, he suggests, is an ancient form of *šmʿ*, which in the demotic text of the *Rosetta Stone* replaces , the badge of Upper Egypt. Thus, instead of Erman's meaningless "Es entstanden der...*dw* und der grüne *dw* am Doppeltor des Ptah-tempel," we now have the interesting statement, "Es geschah dass man Binse and Papyrus setzte an die beiden Aussentorbauten des Hauses des Ptah." As Sethe aptly remarks, the placing of these two badges in this form—*šnʿ* and *w;ḏ* are determined by  and  respectively—in the temple entrance, as symbols of the union of the Two Lands, finds a parallel in the two famous granite columns of Tuthmosis III at Karnak.

Pp. 46 f. He is clearly right in translating *ntrw ḫprw m Ptḥ* by "die Götter, die in Ptah Gestalt gewonnen haben" as against Erman's rendering "die Gotter die aus Ptah entstanden."

*Ibid.* His emendation of Erman's reading  to  is surely correct and forms a parallel with the following *Ptḥ-Nwnt, mwt, ms 'Itmw*.

Sethe's exposition of the whole of the "Theological Narrative" is brilliant. His translation—there can be little or no doubt as to the correctness of it—shows that the religious thought displayed in these passages is even more advanced than the translations of Erman and Breasted had led us to suppose.

P. 50. Sethe's rendering of *ḫpr m ḥ;ty, ḫpr m ns m tỉt 'Itmw* (l. 53), "Es entstand in dem Herzen, es entstand auf der Zunge, (ein Gedanke) in der Gestalt des Atum," is immeasurably superior to Erman's "...der zum Herzen wurde als Teil des Atum und der zur Zunge wurde als Teil des Atum." Erman regarded these words as the continuation of the lost ending of line 47, and with Breasted took *ḫpr* to be a participle referring to Ptaḥ, both these scholars having overlooked the passages in *Urk.* iv, 261, and *Destruction des hommes*, 60 f., which gave Sethe the clue to the real meaning of the passage in our text. *Tỉt*, Sethe points out, means neither "emanation" (Breasted) nor "Teil" (Erman), but "Bild," "Abbild," "Zeichen," as he proves by many examples.

P. 55. He has obtained a far better sense than Erman for the passage *ḫpr·n śḫm—mrrt·f*, owing to his having been able to fill up two important lacunae from the squeeze.

P. 57. His view that the words $\frac{mtwt}{drty}$ *'Itmw ỉp,*sic (l. 55) form a separate sentence, though standing in relationship to the preceding *pśḏt·f m bỉḥ·f m* $\frac{ỉbḥw}{śpty}$, is obviously correct and results in a highly satisfactory translation.

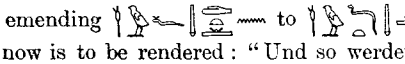
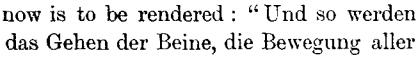
P. 59. He agrees with Breasted in making *m;;' ỉrty śḏm mśḏrwy*, etc. the objects of *mś·n pśḏt*, because from Shu and Tefênet were descended only the last six persons of the Ennead, and because, furthermore, if Erman's rendering were adopted there would be no connexion between *m;;' ỉrty*, etc., and the preceding sentence.

Pp. 60 f. *Św* before *mś* in line 56, and before *ỉr* and *mtn* in line 57 is clearly, as Sethe points out, the narrative particle, and *mś, ỉr* and *mtn* are in the passive *śḏm·f* form and not active participles.

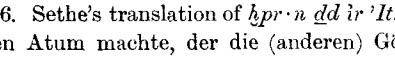
P. 61. Sethe's insertion of *k;;t ỉb prt m ns* after *mdt tn* (l. 57) greatly improves the sense, and is, indeed, demanded by the demonstrative *tn* which is preceded by nothing to which it can refer.

P. 64. Sethe inserts *św* $\frac{dỉ\ m;ꜥt\ n}{dỉ\ ỉsft\ n}$ before *ỉrr* $\frac{mrrt}{mśḏt}$ (l. 57), holding that these or similar words have dropped out of our copy of the text along with the end of the preceding sentence. Plenty of evidence in support of this really brilliant reconstruction of the passage is cited in the accompanying note.

P. 65. Sethe is clearly right in taking *św ỉr* (l. 57) as the particle *św* followed, as above on p. 61, by the passive *śḏm·f* form, and *ỉrt ꜥwy šm rdwy nmnm ꜥt nb* as infinitives followed by the genitive of the logical subject, as are *m;;' ỉrty* and *śḏm mśḏrwy* (l. 56) on p. 59.

By emending  to  he greatly improves the sense of the whole passage, which now is to be rendered: "Und so werden getan alle Arbeiten und alle Künste, das Handeln der Arme, das Gehen der Beine, die Bewegung aller Glieder gemäss diesem Befehl, der vom Herzen gedacht wird und durch die Zunge hervorgekommen ist und die Bedeutung aller Dinge macht."

P. 66. Sethe's translation of *ḫpr·n ḏd ỉr 'Itmw śḫpr nṯrw r Pṯḥ* (l. 58), "Es geschah, dass gesagt wurde 'der den Atum machte, der die (anderen) Götter entstehen liess' von Ptah," is undoubtedly correct. Erman's rendering is not only grammatically impossible, but contradicts what the text says elsewhere on the subject of Ptaḥ's relation with Atum.

Sethe's reading of the bird-sign before  as *gm* instead of *Ḏḥwty*, as Erman read it, brings this passage into dogmatic conformity with the rest of the "Theological Narrative"; for, as Sethe points out, Thōth in our text plays not the rôle of the discerning heart but the speaking tongue. We now have the narrative particle *św* introducing two parallel verbs in the passive *śḏm·f* form, their subject being the sentence *ꜥ;' pḥty·f r nṯrw* (see Gardiner, *Eg. Gramm.*, § 184, 1 and 2).

Sethe is surely correct in taking *ỉḫt nb rd ḥr ḫtw·f* (l. 60) as finally completing in a general way the enumeration of the materials in which the gods take visible shape.

P. 70. As he points out on pp. 23 f. *św ỉꜥb n·f nṯrw nbw* means "Und so versammelten sich ihm alle Götter" (*i.e.*, Memphis became the great religious centre of Egypt), and not as Erman translates "und so versammelte er alle Götter." He also shows that the words *ḥtpy ḫnmy* are not plural imperative forms but contain a designation of Ptaḥ.

P. 72. *N wnt* (l. 62), misunderstood by Erman, is taken by Sethe as the equivalent of *n ntt* "because" (*cf.* Gardiner, *Eg. Gramm.*, § 233). The sentence introduced by this conjunction gives the mythological reason for Memphis becoming the store-city of Egypt—the drowning of Osiris in that district.

Just one or two suggestions :

P. 20. Sethe still adheres to the old rendering of *ỉr·f dỉ ꜥnḫ ḏt*, "damit er mit Leben beschenkt sei," instead of adopting the surely more correct translation, "May he make 'Given-life'!" (see Gardiner, *Eg. Gramm.*, § 378).

Pp. 35 f. Sethe points out that the determinative of *mḫ;t* is not , as Erman supposed, but , the hand balance. He also points out that *Mḫ;t-t;wy* is not a name of the temple of Ptaḥ, but of that part of Memphis in which the temple was situated. As he rightly maintains, *f;t* in *Mḫ;t-t;wy f;t tȝ šmꜥ mḥw ỉm·s* is a perfect passive participle, and accordingly renders the words "die Wage der beiden Länder in der das oberägyptische und das unterägyptische Land gewogen worden sind," adding "nämlich beim Teilungsakt von 8.9, der im Gebiete von Memphis stattgefunden haben sollte." His idea, I presume, is that Kēb weighed, as it were, the Two Lands in the balance when dividing them between Horus and Sēth. I venture to suggest that *mḫ;t* in this passage bears the same meaning as it does in Newberry, *El-Bersheh*, Pl. xiv, l. 11, the "place of toll," the "customs house," that is to say that merchants passing from Lower into Upper Egyptian territory and *vice versâ* here paid an import or export duty on their wares.

P. 66. In his note on *ỉm;ḫ* meaning, when used in reference to men, "Würde," "Ehre," "Wertschätzung," and in reference to things, "Wert," "Geltung," "Bedeutung," Sethe has overlooked the fact which Gardiner points out in his *Eg. Gramm.*, p. 456, that the primary meaning of the word is "marrow," from which the other meanings were naturally enough derived.

AYLWARD M. BLACKMAN.

*Herodot in Aegypten: Ein Kapitel zum griechischen Kulturbewusstsein.* Von JOSEPH VOGT. (*Einzelausgabe aus Genethliakon Wilhelm Schmid, Tübinger Beiträge zur Altertumswissenschaft*, Heft 5.) Stuttgart : W. Kohlhammer, 1929.

This interesting monograph is not concerned, except incidentally, with the credibility of Herodotus' narrative—that question may be regarded as settled by the work of recent researchers, notably Spiegelberg—nor yet, primarily, with his sources, but rather with his attitude to Egyptian culture and so with his point of view in respect of the relations between the Greeks and the non-Greek world generally. Vogt deals also, by way of preface, with the attitude of the Egyptians themselves towards the Greeks, tracing it through its successive stages, which may be summarized as (i) hostility to foreigners, (ii) need of foreign help (Saite dynasty), leading to (iii) the attempt to impress the Greeks with the superiority of Egyptian culture, (iv) political co-operation due to the common hostility to Persia, (v) the attempt to prove ancient connexions between Greece and Egypt. Their efforts were successful in the case of Herodotus, who was completely "bluffed," and was willing for the most part to accept the Egyptian estimate ; but he remained none the less a thorough Greek in his interpretation of Egypt in terms of the Greek mentality. In a concluding section Vogt shows that in this respect he was typical of his countrymen generally, who, while always ready to acknowledge the priority of other cultures and to regard their own institutions as borrowed, did so from no self-depreciatory motive, but by interpreting the foreign in their own spirit, which they treated as the norm of common humanity.

The monograph is well written, with full knowledge of the relevant literature, and is a useful addition to Herodotean studies.

H. I. BELL.

*Ancient Painting from the Earliest Times to the period of Christian Art.* By MARY HAMILTON SWINDLER. Yale University Press and London, Humphrey Milford.

In these days of expensive printing and book production it is indeed a relief to find a stout, well-bound quarto volume of 500 pages with 16 plates (some of which are coloured) and 640 other illustrations, the whole admirably produced, offered for twenty-five shillings. As its title implies, this sumptuous volume covers the entire range of the history of painting from the Palaeolithic to the Christian period. Whilst in this *Journal* any part of the work other than that which deals with Egypt is manifestly outside our purview, it is as a whole admirably conceived, for it is impossible to appreciate the significance of the artistic achievements of any one nation or race without considering them as part of a great whole, amongst the elements of which action and reaction must have had, and demonstrably have had, a subtle and complex influence.

The section of the book that deals with Egypt (pp. 13–33) may be taken as typical of the rest. It is a clear and reasoned statement of the nature and development of Egyptian art and the shaping influence exercised upon it by the peculiar physical, geographical and ethnic conditions of the Nile Valley. The author has made herself thoroughly familiar with the technical literature of Egypt and the book is consequently well documented. To Egypt are devoted over fifty well-chosen illustrations and one coloured plate.

It is impossible to offer anything but the highest praise to the author who has written, and the University that has published, this admirable volume. It is a veritable treasury of the highest artistic, aesthetic and historical value, and the wide range of its subject-matter will assure for it an honourable place in the libraries of scholars and institutions whose activities are concerned with the history of art, of culture and of the specific civilizations with which it deals.

To round off a fine piece of work, evidently embodying great technical knowledge and a vast amount of research, the author has appended to the volume a very full bibliography (which, judging by the section devoted to Egypt, is very complete and shows critical acumen), a glossary of technical terms and an extensive alphabetical index.

WARREN R. DAWSON.

*The Rosetta Stone in the British Museum.* By Sir E. A. WALLIS BUDGE. Religious Tract Society.

The story of the Rosetta Stone and the decipherment of the hieroglyphs is a topic of evergreen interest, not only to Egyptologists but to the growing class of laymen interested in the history of the ancient East. Sir Ernest Budge has several times told the story in former works, and he now presents it in a much fuller and very readable form in the present monograph. The centenary of the brilliant discoveries of Champollion was celebrated in 1922, and it was the occasion of a vivid revival of interest in the particular branch of the subject from which the modern science of Egyptology had its birth. Many valuable memoirs appeared from the pens of Egyptologists both British and foreign in which the facts of the discovery and its history were marshalled anew, and from these labours new interpretations and new points of view emerged. Sir Ernest Budge has retold the story in the light of recent researches and has expressed it in a well-illustrated book in which hieroglyphic type is freely used. A useful bibliography of works dealing with the Rosetta Stone and the decipherment of hieroglyphs is printed at the end of the volume, although it must be confessed that there are some notable omissions from this list.

As is well known, Sir Ernest Budge has hitherto remained faithful to the old doctrine that the Egyptian alphabet contained vowels, and whilst he still uses vowels in transcribing Egyptian words, he now does so merely in order to make the words pronounceable. In his former opinion, once universal, he stood practically alone, and consequently to Egyptologists the following paragraph (p. 246) marks an epoch:

"Strictly speaking, all the letters of the Egyptian Alphabet are consonants, just as are the letters of the Hebrew, Syriac and Arabic Alphabets, but certain of them, *viz.*, , , ,  and  (ע), are treated as vowels, although they are in truth weak consonants. Birch and Brugsch, and some of the early Egyptologists transcribed these weak consonants as vowels, because in the transcription of Greek and Roman proper names they were used as vowels. In reading a text the Egyptian reader himself supplied the vowels, and it is for this reason that we shall never know accurately how the Egyptians pronounced their words."

Sir Ernest Budge does not go the whole way towards adopting modern views on the nature and structure of the Egyptian language, but in the above-quoted paragraph he frankly admits the principles, if not the whole system, of contemporary scholars.

WARREN R. DAWSON.

*Wirtschaftliche Schwankungen der Zeit von Alexander bis Augustus.* Von FR. HEICHELHEIM. Jena: Gustav Fischer, 1930. Pp. 142, 2 plates (graphs).

Dr. Heichelheim has done a most useful piece of work in collecting and tabulating the evidence as to prices in the Near East during the Hellenistic period. There are, of course, many gaps in the records, and the only place from which anything like a continuous series of figures can be obtained is Egypt: but Delos and Mesopotamia supply enough material to be of service for comparison. As he recognizes, there are many factors to be considered in discussing the meaning of variations in price, and it is rarely possible to determine which of these factors might be operating in a given case: but he has succeeded in showing

that the general trend of prices followed very similar lines in the places for which we have most evidence, and he is justified in tracing an economic connexion between the movements, at any rate in Delos and Egypt.

The section on currencies, particularly the Ptolemaic currency, might be made more convincing by further investigation. For instance, the table on p. 24, intended to show the depreciation of Ptolemaic silver, is of little value, because it is based on specific gravities, which are not a safe test of the composition of coins, and mixes up Cypriote and Phoenician issues, which were made for different markets : also he takes Svoronos' dating of the Ptolemaic coins, which is not in accordance with the evidence of finds. The argument on p. 38 seems unsound, in view of the probability that Egypt did not import gold, which was produced locally, but did import silver: and the respective values must have been affected by the fact that the import of silver was controlled by royal decree. As regards Roman currency also it should be noticed that Sulla's "aureus," mentioned on p. 39, was struck for Eastern use, and is not to be brought into relation with the denarius ; and that the issue of copper at Rome ceased in the last half-century of the Republic, which weakens the conclusions on p. 43.

Though there is room for improvement here, however, the work as a whole is characterized by a sound economic judgment and a cautious statement of conclusions which make it a valuable guide to the study of the sixteen tables of prices which are appended to it.

J. G. MILNE.

*Qau and Badari I*, by GUY BRUNTON, with chapters by ALAN GARDINER and FLINDERS PETRIE. London, 1928. (British School of Archaeology in Egypt.)

Since Sir Flinders Petrie inaugurated an archaeological method by which "tomb-digging" became "cemetery work," a number of younger men, both from within and without his "British School of Archaeology in Egypt," but all inspired by his writings and example, have greatly elaborated his procedure. Everywhere the old custom of dealing with isolated finds of patent interest has now been superseded by a statistical treatment of the complete inventory of a fully excavated group of interments. In no work, however, is this new method carried out more rigorously, and its possibilities explored with greater thoroughness, than in the book now under review. Mr. Brunton actually describes his method, but few of his readers will realize the patience and firmness of purpose required to carry through to the end a scheme which entails the tabulation of all contents and details of several thousands of tombs, and the drudgery of preparing full registers of all of them. Yet the latter are necessary to enable others to check the author's conclusions, and to use his material for their own work in the field ; and the conclusions themselves are based on the tabulations, seeing that the method is statistical. The objects are given, largely in corpus form, in 60 plates of Mrs. Winifred Brunton's unsurpassed drawings.

It is clear that this book possesses a great methodological value, apart from the results achieved by the excavations, and this the more, since Mr. Brunton has elucidated in the few concise chapters with which the book opens such general matters as the procedure followed in digging and recording, and the complex problem of "dating" the tomb-groups in a long series of finds, which lack explicit, *i.e.*, inscriptional, evidence as to their period. Thus we hear of the value of the type of tomb as evidence of date, and the unreliability of stone vases for this purpose (a warning to Aegean archaeologists); also of the impossibility of dating by the quality of the work, and other matters of principle, the interest of which is not confined to the comparatively narrow circle of Egyptologists, but affects all archaeologists. On one point we must disagree with Mr. Brunton. We doubt the expediency of avoiding the cumbersome terms Early First Intermediate Period, etc., and of adopting instead Seventh, Eighth and Ninth Dynasties. The dynasties, after all, are historical entities, whether we moderns are able to recognize them as such or not, and a false impression of precision is created if periods only distinguishable by certain phases of material culture are thus labelled. This false impression threatens to become a confusion of facts if, as our knowledge progresses, one or more of these historical entities should suddenly take shape again : thus, for instance, it seems now that the Eighth Dynasty owed its existence to Asiatics, who had penetrated into the country during the disturbances in which the Old Kingdom foundered ; but nothing warrants the assumption that the phase of material culture here labelled "Eighth Dynasty" prevailed during their reign.

After a chapter (which makes good reading) on the activities of ancient tomb-robbers, and their effect on the modern explorers' finds, we reach the account of the results obtained at Ḳâw in three seasons of work. Each time Mr. Brunton gives first the material of a certain period, and then, in a summary, its outstanding features and the inferences he draws from it. The most important fact is that a series of

graves on one site was excavated which covers the periods from Predynastic times down to well into the Middle Kingdom. Thus the life and development of a provincial town in Middle Egypt during ten centuries is reflected, in so far as tombs are able to reflect it—a matter to which we shall still have to refer. What strikes us first of all, and forcibly, is the gradual character of the changes which come to pass. Yet we know this long period to have comprised more than one political upheaval of the first magnitude. The conclusion, not unsuspected by some, but no doubt new to those who ascribe those upheavals to wholesale invasions of foreigners, is that the life of the country possessed a strength of its own which made it fit to resist sudden onslaughts, though it was in course of time affected by influences that persisted. Very interesting indeed is Mr. Brunton's explanation (pp. 75 f.) of the fact that in the provinces the level of prosperity moved differently from that in the capital, so that in Ḳâw the richest tombs, both as regards quantity and quality (gold) of the equipment, are not those belonging to the great historical epochs, but to the disturbed times by which these were separated from each other.

The gradual changes referred to above are observed not only in material culture but also in the world of thought, namely in the burial rites. Yet one has to be careful before inferring too much; thus Mr. Brunton makes it clear that "after the Sixth Dynasty the various modifications in the type of the tombs are due to the desire to provide an underground abode which was not likely to collapse." The attitude of the body in the grave is another matter, and to this Mr. Brunton devotes a long and interesting chapter. No greater proof of the value of the statistical method could be given than the entirely new array of facts which show how the attitude changed gradually from Predynastic times onward from contracted to extended, how the old forms survived, how female burials show more conservatism in this respect than male, how the position of the hands changes in a different way, and how rich and poor seem to adhere to different rules.

We could continue to quote interesting observations: "the idea of the preservation of the name by the carrying of a cylinder seal seems to have persisted in a very debased form. Plain cylinder beads are often the only ornament; and it is common to find them in the centre of necklaces." The "buttons" are worn by women, not by men, and the patterns survive down to the earliest scarabs, while the form changes. The ground covered by the book is very wide, because the observations have been carefully made and are most conscientiously worked out. As an actual example, and also because the discovery is to our mind of supreme importance, we quote finally the following in full (No. 2058, p. 29):

"A very rough hole only 11 inches deep had been dug in a tomb shaft and in it had been placed the body of an adult male. He lay face downwards, legs slightly bent, right arm along side, left arm twisted round over the back. The legs were at a rather higher level than the head. Under the face was a group of bone implements consisting of two spatulae (?) and seven small polishers (?). No pottery. Round the neck an assortment of beads which can, fortunately, be certainly dated to the Sixth Dynasty. Such are the large steatite cylinders and the long steatite beads with square section. With them were a hawk's head on a crossbar in carnelian, a very detailed grasshopper, and a cow being milked, the last two of green glazed steatite. All three were well worn, and the last considerably broken. All the circumstances point to the man having been hurriedly and carelessly interred. The grave is very shallow, not much more than a chance hole, scooped out in haste. The body looked as if it had been flung in anyhow. There were no offering pots of any kind. The man's tools (?), perhaps once in a bag suspended from his neck, had fallen close to his face. And the amulets are totally unlike any that we found in a regular burial. In fact I know of no similar ones at all except perhaps the grasshopper, and that only in later times. It seems certain that the man's body was, for some reason, put away without any of the proper ceremonial, and that his necklace and charms were what he was wearing when he met probably a violent death."

Here, by a fortunate chance, is lifted all of a sudden a tip of the veil which hides the living Egyptian from our view. We find tools, amulets, differing from what we know, showing preoccupation not so much with formal religion as with facts important in an agricultural life. There is more to be known than cemeteries can tell us. Whatever Egyptian beliefs were, their tomb furniture does not reflect the whole of their earthly existence. The next task for archaeology in Egypt, ungrateful perhaps, but which should not be shirked, is the excavation of town sites of the classical Egyptian periods.

These last remarks do not, in any way, detract from the interest of Mr. Brunton's book. The value of his observations stands unimpaired, the changes and peculiarities noted are illuminating and important. Other work remains to be done; in the meantime he has thrown a flood of light on a long and little known period of development, and given us a book which will long remain the outstanding example of sound archaeological method.

H. Frankfort.

*Die Grundlagen der ägyptischen Arithmetik in ihrem Zusammenhang mit der 2:n-Tabelle des Papyrus Rhind.* Von Dr. KURT VOGEL. München, 1929.

The re-publication of the Rhind Mathematical Papyrus in 1923 has led to a renewed interest in the subject of Egyptian mathematics and provoked a series of valuable works on it, beginning with Gunn's clever review of the edition in this *Journal* (XII, 123 ff.) and Neugebauer's enlightening if difficult *Die Grundlagen der ägyptischen Bruchrechnung* (Berlin, 1926). Dr. Vogel's book is one of the latest of this series, and deals with that portion of the Rhind Papyrus which has perhaps attracted the attention of mathematicians more than any other, the table for the expression of 2 divided by $n$, where $n$ is an odd number, as the sum of two or more aliquot parts, *i.e.*, fractions whose numerator is unity. It may be said at once that his book is excellent throughout; it shows a fine insight, and a clearness of expression which only comes from clearness of thought. In his exposition of Egyptian mathematical methods, which only goes as far as is necessary for the discussion of the $2:n$ table, V. examines critically the views of earlier writers and has on almost every point something to add to them. He thinks that Neugebauer goes rather too far in saying that the Egyptian had no feeling for multiplication except as an addition. (N. in his preface spoke of "die ausschliesslich additive Grundlage der ägyptischen Mathematik".) He has an admirable discussion of the vexed question whether the Egyptians had any conception of fractions other than those whose numerator is unity; he decides that they had, and even points to one or two attempts at expressing such fractions in writing.

One of the best things in the book is a suggestion which V. makes with regard to the use of a common denominator in the addition of fractions. He agrees with those who have thought that the Egyptian process of adding fractions must in essence be the same as ours of the common denominator, though the common denominator chosen is not always the L.C.M. or even the highest of the denominators, so that when it is divided by these the results are sometimes fractional, as for example in Problem 23. He suggests that the choice of what seem to us unsuitable common denominators may be in part due to the influence of well-known weights and measures on the method of adding fractions. Thus, in adding up a group of fractions the smallest of which is $\frac{1}{15}$, the common denominator used is not 15 but 30, the number of days in the month, and the auxiliary numbers (Hilfszahlen) may therefore be regarded as days. Similarly fractions whose denominators contained 7's tended to be thought of in relation to the long measure, in which 1 forearm (cubit) = 7 hand-breadths = 28 finger-breadths. Consequently, when such fractions are added, we find the denominator 28 used even when higher denominators are present; the auxiliary numbers in this case represent finger-breadths. So, too, the addition of a group whose denominators were powers of 2 might be put into mental relation with the dichotomous divisions of the *hekat* or gallon. This is one of the most illuminating suggestions in the book.

The discussion of the $2:n$ table is divided into two parts, the first dealing with it as a problem in abstract mathematics, the second dealing with the solutions given in the papyrus. The *šmt* which accompanies each solution is regarded by V. rather as a proof than as an indication of the method followed by the Egyptian in obtaining his solution, though he rightly points out that it may in some cases also contain a hint of the method. He discusses very clearly the fusion of main- and side-working which has led the writer of the papyrus in some cases to give us fractions in the body of his calculation where in other precisely similar cases he gives whole numbers. This fusion explains the apparent displacement of certain columns in the calculations which Gunn, on p. 128 of his review, had characterized (unnecessarily according to V.) as illogical.

In the notes to his admirably accurate translation (if groups of figures can be called translation) of the 2-tables V. has rightly pointed out a number of errors and inconsistencies in my transcription (*Rhind Pap.*, Pls. A–D), to some of which I plead guilty. With regard, however, to the omission or insertion of dots in the first line of each division it is fair to notice that I purposely, if unwisely, refused to follow the vagaries of the papyrus, in order to make my transcription more intelligible to its users. Thus in the first lines I invariably omitted the dot before the red figures and invariably inserted it after them, so enabling the reader to pick out at once the pair of figures, one red and one black, which are to be taken together.

In some cases, however, V.'s corrections do not seem to me to be justified.

In the first line of the table he remarks that the word *šmt* belongs not to the first division, 2/3, but to the next, 2 5. This is not strictly true. It belongs to all the divisions below it on the page, just as the same word does at the top of each page. On the first page, however, it was not written immediately after *nìš* in the right hand top corner because there is no *šmt* ("proof" or whatever it may mean) in the case of the first division, 2 3. With 2 5 begin the divisions which have a *šmt*, and the word is therefore inserted in front

of 2/5, but refers to all that follow it on that page as well. It is hard to see how I could have indicated this better than by placing it where I did. My translation leaves no doubt as to its reference.

In the working out of 2/21 V. accuses me of reading $\frac{1}{42}$ instead of 42. Now it is clear to anyone who studies the hieratic script of this papyrus that the scribe had an aversion to placing the fractional dot over the sign for 40 because there was already a dot there. 40 is correctly written $\underline{\cdot}$ ; $\frac{1}{40}$ is rarely in the table correctly written $\underline{:}$ (2/43, 2/61, 2/71), much more often with only one dot, $\underline{\cdot}$, in which case it is indistinguishable from 40. It is clear, however, that the scribe intended $\frac{1}{40}$ to be read, for there are numerous cases where the dot is missing only over the 40, being correctly inserted in all the parallel fractions. The confusion between integral and fractional common in this table does not affect my argument, for the second dot over $\frac{1}{40}$ fails even in first lines, where this confusion is impossible.

In the first line of 2/35 V. reads 30 instead of $\frac{1}{30}$. It is true that in the facsimile there is no fractional dot, but, had V. studied the original, he would have seen that this has been destroyed by an injury to the papyrus. The probabilities are therefore in favour of the restoration of the normal $\frac{1}{30}$, not the abnormal 30. V. was doubtless influenced by the proximity of 42 in the same line written with one dot only, which, as we have seen, is a perfectly ordinary writing of $\frac{1}{42}$.

Similarly in 2/37 V.'s objection to my $\frac{1}{24}$ in the first line is unjustified. The fractional dot has, it is true, been destroyed, but there is little doubt that it stood here, as in the two parallel fractions $\frac{1}{11}$ and $\frac{1}{296}$. An even clearer case occurs in the first line of 2/59, where the papyrus shows an unmistakable trace of the dot over the damaged 30-sign. V.'s 36 should therefore read $\frac{1}{36}$.

In 2/79 V. corrects my reading of 237 in the first line to 227. He is certainly wrong. It is true that the scribe has not made a perfect 3, for he has omitted the dot which forms part of the hieratic sign for 30. Nevertheless 30 was what he set out to write. The sign for 30 is in this papyrus made with two strokes and a dot, . The first stroke to be made is  ; then  is added and lastly the dot, and we get . 20 is made in two separate simple strokes, , , and a curved dash is added over the top . Now the scribe here wrote  ; this cannot possibly be a 20, complete or incomplete, but it can be, and clearly is, an incomplete 30, the dot having been forgotten.

I have dealt with V.'s table at some length, partly because it is so accurate that it seems well worth while to make it completely so, partly to insist on the fact that there exists a science of palaeography before which even mathematics must sometimes bow, and that its first principle is to work from the original, not from facsimiles, however good these may be.

In his division of the solutions into classes according to the nature of the *šmt* which accompanies them V. agrees with Gunn, except for some small points of detail and for his further division of one of Gunn's classes into three sub-classes. He has an important section on the irregular solution of 2/35, where a method of auxiliary numbers (Hilfszahlen) is used. He shows that 2/91 implicitly belongs to the same category, and he describes a method of solving the problem which does in fact make use of precisely such auxiliary numbers as are found in 2/35. It is exceedingly simple ; once the first fraction of the resolution has been suitably chosen the first two auxiliary figures are automatically determined, and the third, which at once gives the solution, is obtained by subtracting the second from twice the first. This method can, by a suitable choosing of the first fraction of the solution, be made quite naturally to yield the actual solutions given in the papyrus, with the exception of 2/89 and 2/95. This result is so striking that V. rightly assumes it to be more than a coincidence, and supposes that this simple relation between the auxiliary numbers was known to the mathematicians who gave the table its final form, and that at least some of the less obvious solutions were actually obtained by its use. He would not, however, attribute this knowledge to the earliest contributors to the table, which, in his opinion, goes back to very primitive beginnings and was put together gradually and empirically, and eventually given uniformity by the use of the auxiliary-number method.

T. Eric Peet.

*Les Proverbes de Salomon, Texte bohaïrique.* Edited by O. H. E. Burmester and Eugène Dévaud. Pp. xvi+68. Vienna: Holzhausen, 1930.

The capital importance of the Egyptian versions for the study of the Septuagint was early realized by Paul de Lagarde. It was natural that his projected editions of them should begin with the Bohairic, wherein several complete books were still extant. But his texts are hardly of the critical kind which would to-day be expected; material difficulties presumably hindered him from making use of the best manuscripts—in the case of the *Pentateuch* this has proved a conspicuous drawback—and by now moreover his publications are scarcely to be had. The late Professor Dévaud's scheme therefore for re-editing by

degrees the various books of the Old Testament—not only those printed by Lagarde, but others now almost equally rare—was sure of a welcome. With the collaboration of Mr. Burmester he lived to produce a text of the *Psalter* based on more than twice as many MSS. as Lagarde had used. The edition of *Proverbs* however was not far advanced at the time of his lamented death last year, and the labour of preparing and publishing it fell chiefly upon Mr. Burmester. The labour has indeed been great. Lagarde relied for his text upon a single Berlin MS., written at the end of the eighteenth century; the present edition is based upon five biblical MSS., containing all the book, so far as current in the Bohairic version, besides twenty-three lectionaries, scattered through the various libraries of Europe and Egypt, which have preserved lessons taken from it. Of the biblical MSS. only one is of any antiquity: that in the Rylands Library, dating probably from the fourteenth century; its text is here printed, but with an apparatus, recording every minutest variant and detail, down to the slightest alteration, uncertainty or dot, of all these MSS. Surely no biblical text, in any oriental tongue at least, has had such microscopic care expended on it; it is only to be regretted that here the scribes show an ignorance and carelessness even below the accustomed low level.

Without a systematic study of this material it would not be possible to judge of the relations between the one old and the four modern MSS.; a superficial survey however of the apparatus irresistibly suggests that the Rylands MS. was the immediate progenitor of the others, which seem to reproduce so unfailingly its misunderstandings and misspellings. And in fact the apparatus shows that it is in the liturgical lessons that practically all the variants are to be sought.

An external problem at once obtrudes itself in regard to the Bohairic text of *Proverbs*: the unanimity with which all five MSS. come to an end, in the middle of chapter xiv. Herein the old and the younger MSS. coincide, thereby giving further ground for assuming them to be parent and offspring. Presumably some accidental interruption was responsible for bringing the translator's (or scribe's?) work to this sudden halt. The only evidence for the former existence of a Bohairic version of the rest of the book lies in certain of the liturgical excerpts. The occasional verses quoted by patristic writers from chapters beyond the fourteenth appear as mere adaptations from the Sa'idic and are found in works which had been originally composed in, or translated into, that dialect (examples: v, 22, in De Vis, *Homélies*, I, 146; xv, 3, *ib.*; xvii, 7 (*sic leg.*) in Evelyn-White, *New Texts*, 186; xxii, 2, in De Vis, 166; xxvi, 9, *ib.*, 75). A significant exception is the seventh- or eighth-century Life of the Patriarch Isaac (*Patrol. Or.* xi), where we find verses clearly drawn from the Bohairic version, albeit from the earlier part of the book (chs. iii and x). Half a dozen, occurring in the Bohairic Life of Pachomius, are doubtful witnesses; one only (*Corpus* etc., 89, 127) betrays a clearly Sa'idic origin, the remainder—all from chapters beyond the fourteenth—are less easy to locate.

It will be interesting to see an investigation of the relative character of the version, or versions, whence the liturgical lessons were drawn. Those printed on pp. 50 ff. are but superficially Bohairic; the original Sa'idic lies so close below the surface here that they need hardly be reckoned with in studying this version. The pieces on pp. 47 and 59 on the other hand make a quite different impression; they seem to be survivors of the independent Bohairic text.

The work closes with an unusual gift to scholars: a full Coptic index. Too often an easily made index of incidental Greek words is all that we are offered, and our gratitude to the present editor should therefore be more than usually heartfelt.

Both editing and printing have been carried through with the greatest care; what elsewhere would be taken for misprints may here be safely accepted as the readings of the MSS. W. E. Crum.

*Egyptian Sculpture.* By Miss M. A. Murray. With a preface by Professor E. A. Gardner. London: Duckworth, 1930.

The Assistant-Professor of Egyptology in the University of London has written a short account of Egyptian sculpture and related arts which will be specially useful to those who wish to study the development of Egyptian art historically and to have a convenient summary of the styles of different periods in chronological order. It is illustrated by photographs and line drawings, though hardly in sufficient number to make the argument clear in all cases. We miss illustrations of several pieces, well-known and other, that might have been included, but on the other hand we can welcome some that are not often shown. Among the latter are the wooden figure of Mentuhotep III (Pl. xvi, 3), the figure of Takushet at Athens (Pl. xlii, 4), and a Ptolemaic head of a woman (Pl. li, 1); while among the former we miss the splendid quartzite head of an old man in the British Museum (No. 37883), which is one of the great masterpieces of the Twenty-fifth Dynasty style, and the statue of Tja-isi-nemau, also in the British

Museum (No. 1682), which so admirably illustrates the imitative archaism of the Saites. More space could have been allowed for illustrations of sculpture had the book been confined to that subject as its title states ; but Miss Murray devotes regular sections to painting also, and gives illustrations of it, even going so far as to illustrate an example of painting on papyrus (Pl. l) which is indeed sufficiently curious, but hardly germane to her subject ; and a landscape (a rarity indeed) on a funerary stela of late period (Pl. xlix, 1), of which the same may be said.

Miss Murray carries out very well her main task, which is to bring out and make clear the special characteristics of the sculptural styles of successive periods. Under the Old Kingdom (her best section, in our opinion), she notes such matters as the life in the tomb-reliefs, the use of the writing as a background for the reliefs, the splendid portraiture, the natural position in the statues of the ear (as opposed to its unnaturally high position later), the good treatment of shoulders and legs, the indication of flesh beneath drapery, the absence of the uraeus from the earlier kings' headdresses and from those of the gods until quite a late period, and so forth; all indications of great use to the student who desires criteria of date. The Middle Kingdom with its "tragic" royal portraits, the natural ear of Senusret I, the enormous bat-like ears of Senusret III, his successors and contemporaries, and other such indications, is also well treated. But the later periods, especially the Nineteenth to the Thirtieth Dynasties, receive less interested treatment, the Saites especially being dismissed very summarily.

With regard to the art of 'Amarnah Miss Murray perhaps attributes too much to foreign influence. That existed, no doubt, but I think we must not underrate the native Egyptian character of the art. The removal of the religious conventions will account for much. After all we see tendencies in the 'Amarnah direction beginning before Akhenaten's time ; in his day they had full liberty. Miss Murray is no doubt right in doubting any great influence from Crete ; she says correctly that the Minoan artist did not draw the human figure well, and had no sculpture. The only possible foreign influence that we know is then Syrian. This may have played its part ; but the *facies* of the 'Amarnah art is still quite Egyptian, despite its freedom from convention. Its destruction after Akhenaten's death was, as she says, the death-knell of art in Egypt ; the restoration of the conventions meant that no conformity was thenceforward possible till the invasion of Greek ideas in the fourth century marked by the astonishing reliefs of the tomb of Petosiris.

One point of detail in reference to the 'Amarnah portraits on which I do not think it possible to agree with Miss Murray is her idea that the elongated heads of the princesses, Akhenaten's daughters, are not an artificial deformity as is generally (and I think rightly) supposed, but a form of hairdressing, the hair being turned over a cushion at the back. In order to maintain this view, Miss Murray has to assume that even the two baby princesses of the Ashmolean wall-painting had their hair dressed in this way, which seems improbable. And in fact this painting to my mind proves the error of Miss Murray's view, for though hair dressed in such a way *might* not be visibly indicated in statuary, in painting it would have to be shown. But in the Ashmolean fresco we see no sign of it. The skulls of the princesses are as bare of hair as eggs ; the only marking on them is the shading that the 'Amarnah artist had invented. No, I am afraid that Miss Murray's kind attempt to explain away those nasty deformed skulls will not hold water. The matter of the shading is important ; *chiaroscuro* now first appears in Egyptian art (though rather earlier than 'Amarnah, as the tomb of Ḳenamūn shows) and soon disappears.

The head of a young man with natural hair (not a wig) parted in the middle (which in Steindorff's *Kunst der Aegypter* is wrongly said to be a woman's head), Pl. xliv, 3, Miss Murray dates to the Twenty-fifth Dynasty on the analogy of Mentuemhat's well-known head and certain Fifth Dynasty heads ; she considers it archaistic. I however am unable to rule out the possibility of its belonging to the Eighteenth Dynasty, when the natural hair seems often to have been worn by men instead of a wig ; we see this in the case of Amenophis, son of Ḥapu, for instance.

With the identification (made independently by Miss Murray and Dr. Evers) of the royal portrait figure of a king Kheperkerēʿ in the British Museum (No. 44), which used to be attributed to Nekhtnebef, as Senusret I, I am now, after some initial hesitation, in entire agreement. It is undoubtedly Senusret, and I have so relabelled it and moved it to its proper chronological position in the Museum gallery.

The curious monstrous forms in proto-dynastic art, such as the "serpo-pards" on the Ashmolean "palette" from Hierakonpolis, Miss Murray is no doubt right in attributing to Sumerian influence, which we often see in Egypt at that time, *e.g.*, in the grinning lions of the First Dynasty, so different from the usual Egyptian type with closed mouth, which first appears under the Old Kingdom, and is stereotyped by the time of the Fifth Dynasty.

The book is well produced. There are one or two misprints, *e.g.*, "xlv" for xlii on p. 148, and Amenardys" on Pl. xliii. H. R. Hall.

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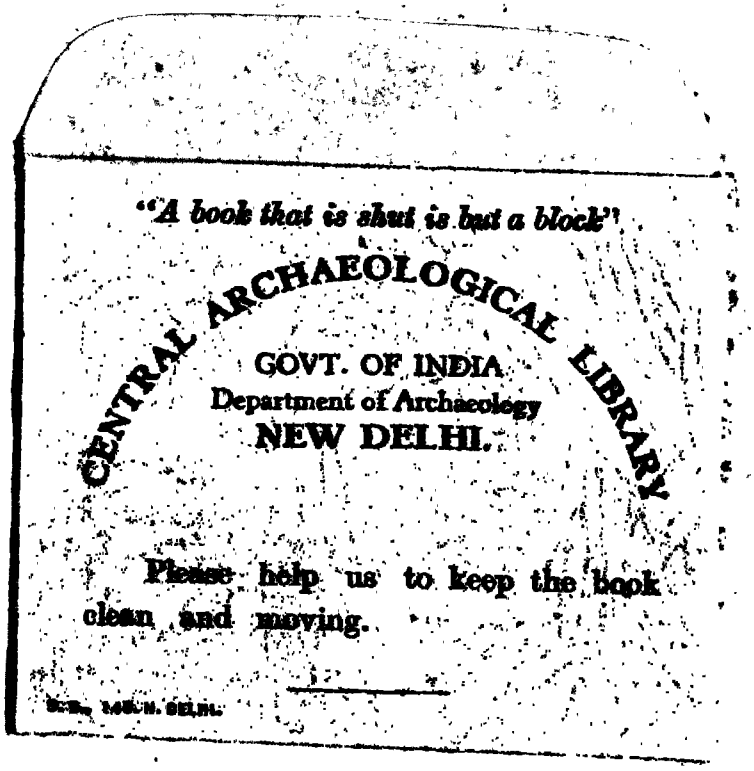
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